Cache Creek
Coordinated Resource Management Plan/ Environmental Assessment

September, 2002

Initial Draft for Public Review

United States Department of the Interior
Bureau of Land Management
Ukiah Field Office

Table of Contents

Overview

The Proposed Action of this Coordinated Resource Management Plan (CRMP) is to protect resource values while providing for compatible recreational uses. Detailed discussions of the Proposed Action and four alternatives are found in Chapter 3, as well as discussions of several key issues critical to this plan.

Comments generated since 1993 from several public meetings and two meetings of a special Review Team have focused on the primary goal of maintaining undisturbed natural values, with a secondary goal of providing opportunities for primitive recreation within the Cache Creek Natural Area, hereinafter referred to as the CCNA. Without a plan in place, public lands here would be left open to unmanaged land uses that could degrade resource values and quality of primitive recreation. This plan also considers four alternatives to the Proposed Action. The Proposed Action and alternatives are all consistent with the Clear Lake Resource Area Management Framework Plan Update (1984), the "general plan" for BLM lands under the jurisdiction of the Ukiah Field Office.

This CRMP is not intended to be a clearinghouse for all projects proposed for the CCNA. Rather, it discusses a range of several types of potential projects in general terms (wildlife habitat management, noxious plant control, riparian restoration, recreational developments, etc.). For each project subsequently proposed, an Environmental Assessment will be prepared which details the specific actions and location of each project.

Resources and programs within the CCNA evaluated in this CRMP include native vegetation, noxious non-native vegetation, fire and fuels management, wildlife, fisheries, special status plants and animals, riparian values, cultural resources, recreation, access and land acquisition, scenic values, water and flow management, rangelands, wilderness, geology, minerals, and soils. These resources and programs are individually discussed in detail in Chapter 2.

Impacts from the Proposed Action are expected to be minimal. These impacts would come from wildlife habitat improvements and construction of public use facilities, or from the presence and activities of visitors taking advantage of recreational opportunities. A detailed discussion of the anticipated impacts from the Proposed Action and each of the four alternatives, along with mitigation measures is found in Chapter 4.

Public participation was solicited through a series of public meetings and written comments (Appendix 4, Public Participation Plan). The initial series of meetings resulted in scoping and defining major issues of concern within the CCNA. Assessing these issues led to the development of the Proposed Action and alternatives. Once the contract was approved to acquire the Payne Ranch in

1998, another round of public meetings was held in 1999 to solicit comments regarding management of this property, since resource values are quite diverse, and some values such as wildlife and cultural resources are also very sensitive throughout this portion of the CCNA.

In early 2001 a special Review Team was assembled to evaluate the Draft CRMP prior to public release. Volunteer members of the Team and the interest they represented included:

- Mike Ford, Rocky Mountain Elk Foundation (Wildlife issues)
- Jim Swanson, Dept. of Fish & Game (Wildlife issues)
- Jim Ball, Director Yolo County Parks and Facilities (Recreation issues)
- James Austin, Backcountry Horsemen (Recreation issues)
- Craig Thomsen, Dept. of Agronomy and Range Science, UC Davis (research)
- Jeff Smith, Supervisor District 2, Lake County (Local government issues)
- Doug White, Supervisor District 2, Colusa County (Local government issues)
- Jim Eaton, California Wilderness Coalition (Wilderness issues)
- Ray Krauss, Homestake Mining Co. (Industry issues)
- Kesner Flores, Cortina Rancheria (Native American issues)
- Chet Vogt, California Cattlemen's Association (Grazing issues)

The initial meeting of the Review Team was held in March of 2001. The predominant comment from the Team was that the initial Draft as written appeared to be more of a recreation management plan than a plan with a priority to protect the various resource values found within the CCNA. Comments gathered at this Review Team meeting begin on page 114 in Appendix 4.

A second meeting of the Review Team was held on December 8, 2001 in Williams, following revision of the initial Draft. Comments gathered at this meeting are also included in Appendix 4. Additional attendees at this meeting included:

- Jerry Hartwig, Yolo County Parks Board
- Andrew Fulks, Yolo County Parks Board
- Scott Koller, Dept. of Fish & Game

Environmental Assessment No. CA-340-01-013

Preparer Signature Page

(Each Preparer should sign off on this page when they are satisfied with the EA)

Title of Project: Cache Creek Coordinated Resource Management Plan

Preparing Office: Ukiah Field Office

Project Leader: Gregg Mangan **Title:** Cache Creek Natural Area Manager

List of Reviewers:

Position	Signature	Position	Signature
Wildlife Biologist, and Rangeland Mgmt. Spec.	Pardee Bardwell	Recreation Planner, and Visual Resources Mgmt.	Jeff Wilbanks
Realty Specialist	Alice Vigil	Operations	Steve Myers
Archaeologist	Julie Burcell	Engineering, and Realty Specialist	Bill Dabbs
Fire/Fuels	Jim Dawson	Geologist	Charles Whitcomb
Cache Creek Natural Area Manager	Gregg Mangan	Hazardous Materials	Dave Fatch
Recreation Planner	Jonna Hildenbrand	Law Enforcement Supervisor	Walt Gabler
Soil, Water, and Air Specialist	Frank Arriaza		

_____

Project Leader Date

Chapter 1: Introduction

The Cache Creek Coordinated Resource Management Plan(CRMP) describes management opportunities and alternatives for public lands located primarily within the Cache Creek drainage in portions of Lake, Colusa, and Yolo counties. Management decisions in this plan will apply to public lands managed by the federal Bureau of Land Management (BLM). This block of BLM land is known as the Cache Creek Natural Area (CCNA). State lands owned by the California Department of Fish & Game (CDFG) are also included in this plan. These CDFG lands have been designated as the Cache Creek Wildlife Area. Additionally, CDFG manages other state lands owned by the State Lands Commission (SLC). Lands acquired by the Rocky Mountain Elk Foundation (RMEF) as part of the Payne Ranch acquisition are included in this CRMP. Yolo County park lands along Cache Creek are also included**.** Although there are private lands included within and adjacent to the CCNA, the decisions reached in this planning process will not apply to these lands unless they are subsequently acquired from willing sellers and added to the CCNA, Cache Creek Wildlife Area, or Yolo County Parks. However, at their option, any private landowner may voluntarily include specific management actions on their lands also.

The BLM and CDFG have signed a Memorandum of Understanding (MOU) for cooperative management of resource values found on BLM and CDFG-administered lands (Appendix 5). The focus of this MOU addresses protection and enhancement of biological values.

The BLM has also signed an MOU with Yolo County to provide mutual assistance in management of those BLM and county lands within and adjacent to the 1300-acre Cache Creek Canyon Regional Park in northwestern Yolo County. Items of mutual interest in this MOU include recreational access, trail development, visitor information, and overseeing the area via law enforcement patrols, campground hosts, etc.

In addition a third MOU is currently being developed between the BLM and the RMEF for management of the RMEF portion of the former Payne Ranch. This MOU will focus on habitat improvement and restoration, as well as compatible public use. BLM will manage these lands until the BLM buys them back according to a previous agreement.

The Cache Creek area is exceptional in supporting diverse biological values, recreational opportunities, and natural beauty. Hiking, horseback riding, bird watching, primitive camping, commercial and private river rafting, hunting and fishing are just a few of the recreational opportunities available. The natural beauty of the Cache Creek area is exemplified by the variety of fauna and flora, year-round flowing water, riparian habitats, open meadows, oak woodlands, and diverse topography.

With a large expanse of remote country and an ample supply of forage

fish, Cache Creek provides excellent habitat for a newly-discovered nesting territory for the threatened bald eagle, as well as seasonal habitat for a significant number of wintering bald eagles. Diverse habitats also provide suitable areas for the Cache Creek tule elk herd to utilize year-round.

CRMP Area and Boundary

The plan area is bounded generally by Blue Ridge and Cortina Ridge on the east; portions of Bear Valley Road, Sulphur Creek, Walker Ridge Road and Indian Valley Dam Road on the north; the North Fork, Highway 20, and Highway 53 on the west; and the Morgan Valley/Reiff Road and Napa-Yolo County line on the south (see Vicinity Map).

The CDFG recently acquired the 8,000-acre Knoxville Ranch in northeastern Napa County. This property is contiguous with the CCNA, however it has been designated as the Knoxville Wildlife Area, and CDFG is planning to prepare a separate management plan for this property.

The CCNA includes the large block of public land centered around Cache Creek. The majority of these lands are within the Cache Creek watershed, while the remainder are within the adjacent smaller watersheds of Hunting and Soda Creeks, which flow into Putah Creek, thence Lake Berryessa.

The overall plan boundary uses natural features, such as creeks, ridges, and canyons, to the extent possible. Additionally, some portions of the boundary include highways and roads.

The portion of the Cache Creek watershed within this plan includes Cache Creek from Cache Creek Dam in Lake County downstream to the Rumsey Canyon tributary just upstream of Rumsey in the Capay Valley of Yolo County; and the North Fork from Indian Valley Dam to the confluence with Cache Creek, all within Lake County. The remainder of the plan area includes minor portions of the Soda Creek and Hunting Creek

watersheds, all flowing into Lake Berryessa.

Any choice made by private landowners to participate in public land management actions found in this plan which could also include adjacent private land, is strictly optional.

Need for the Proposed Action

The Proposed Action is necessary to properly manage the diverse biological, cultural, and natural values of the CCNA, while providing a compatible level of primitive recreation. With recent acquisitions, lands which are rich in natural, cultural and recreational values previously unavailable for public use are now legally accessible. It is the challenge of this CRMP to provide the necessary protection for these values.

Without an approved management plan in place, portions of the CCNA could be left open to uses that would degrade resource values, impacting both the natural values of the area and recreational opportunities. Based on comments received during several previous public meetings and written comments, this would be counter to the desires of the public (Appendix 4).

Conformance with Land-Use Plans

This plan is in conformance with federal and state laws and regulations that apply to the management of public land, and it is written to meet the documentation requirements of both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

The Proposed Action is consistent with the Clear Lake Resource Area Management Framework Plan (MFP) Update (1984). This plan is considered the current "general plan" for BLM lands under the jurisdiction of the Ukiah Field Office.

Many planning issues have changed and new issues have emerged since the 1984 MFP Update. Because of this the Ukiah Field Office recently took the initial step to begin the preparation of a Resource Management Plan (RMP). A Pre-Plan Analysis was completed in early 2001. The RMP is tentatively scheduled to be prepared by a contractor sometime in 2003 or 2004.

Relationship to Statutes, Regulations, or Other Plans

The plan is consistent with existing federal legislation including the Federal Land Policy and Management Act (FLPMA), the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), and the National Historic Preservation Act (NHPA); other internal BLM laws, policies, and regulations, as well as documents such as the Rocky Creek/Cache Creek Wilderness Study Area EIS; state legislation including the California Environmental Quality Act (CEQA); Title 14 of California Code of Regulations, and the Fish and Game Code.

Coordination with local governments has been integral in the development of this plan. Representatives of Lake, Colusa, and Yolo Counties have assisted in the development and provided comments for this plan.

Other site-specific activity plans which have been previously approved and implemented include the Cache Creek Area of Critical Environmental Concern (ACEC) Management Plan, the Cache Creek Tule Elk Wildlife Habitat Management Plan (HMP), and the Northern California Chaparral Research Natural Area (NCCRNA) Management Plan.

CRMP Process

The public, including neighboring landowners, are equal partners with BLM and CDFG in developing this plan. At their option landowners may also choose to include specific management actions on their property. The intention of this process is to have full public participation in formulating a Proposed Action and alternatives. The public has been and will be invited to continue participation in this process, and to express their views and opinions (Appendix 4).

Roles and Authority

The BLM, through the Ukiah Field Office Manager, has the authority to make land-use decisions on public lands under the jurisdiction of the Ukiah Field Office. Additionally the lands owned by the RMEF will be cooperatively managed by BLM and RMEF under an MOU until such time that the BLM buys these lands back from RMEF. The Regional Managers of CDFG Region 2 (Sacramento Valley-Central Sierra Region) and Region 3 (Central Coast Region) have the authority to make land-use decisions on Department-administered lands (CDFG and State Lands Commission lands) within the plan area. The role of the two agencies in this process is to inform the public of the need for appropriate management of resource values in this area, and to solicit input in developing issues, concerns, and proposed and alternative actions. Any decisions made by private landowners to participate in this plan or to adopt for their own land any of the BLM and CDFG policies or decisions, are strictly voluntary.

Effect of Wild and Scenic River Designation on Private Land

The BLM is mandated to identify and evaluate all river and stream segments on Bureau-administered public lands to determine if they are appropriate additions to the National Wild and Scenic Rivers System (NWSRS).

There are three distinct steps for evaluating identified river segments:
(1) determination of eligibility, (2) tentative classification of each eligible segment, and (3) completion of a Suitability Study at the EIS level.

At this time only steps 1 and 2 have been completed. The final step is the Suitability Study, which will result in a recommendation to Congress to either designate or not designate the creek into the NWSRS.

With the recent introduction of Senate Bill 2535 (California Wild Heritage Act of 2002) by Senator Boxer, it has been proposed that Cache Creek be designated a Study River. If this designation does in fact occur, the BLM then has three years to complete the Suitability Study. From the Suitability Study will come a recommendation whether or not Cache Creek should be designated as a Wild and Scenic River.

The other means by which a Suitability Study would be completed is through a future Resource Management Plan (RMP) or as an amendment to the existing Management Framework Plan (MFP). As previously mentioned the Ukiah Field Office recently completed a Pre-Plan analysis for the preparation of an RMP. The RMP is tentatively scheduled to be prepared by a contractor beginning in 2003.

If Cache Creek or any of its tributaries receive formal designation, land use controls on private lands remain a matter of state and local zoning. The basic objective of Wild and Scenic River designation is to maintain the existing condition of the river. If a land use or development clearly threatens the outstandingly remarkable values which resulted in designation of the river, efforts would be made to remove the threat through local zoning, land exchanges, purchases from willing sellers, and other actions except condemnation of private land. The Wild and Scenic Rivers Act specifically prohibits Federal use of condemnation for fee title purchase of lands if 50 percent or more of the land within the boundary is already in public ownership.

Appendix 2 addresses both the determination of eligibility and the tentative classification of each eligible segment.

Chapter 2: Affected Environment

The affected environment will be discussed in relation to the Proposed Action and Alternatives 1-4.

Existing Situation

Land Ownership

The Location Map depicts the ownership within the overall boundaries of this CRMP. This area presently includes 123,997 acres. Of this amount 70,817 acres are BLM-administered and comprise the Cache Creek Natural Area (CCNA); 3,476 acres are State of California-administered (CDFG and State Lands Commission); 1300 acres are Yolo County Parks; and the remainder of 48,404 acres are in private ownership (including 1,678 acres owned by the Rocky Mtn. Elk Foundation).

Future Acquisitions within the CCNA

Additional acquisitions of private lands from willing sellers will likely occur by BLM, CDFG, and Yolo County. These will be prioritized primarily by their relative resource value and importance for public access.

Socio-Economics and Land Uses

The main economic uses currently operating within or adjacent to the CCNA include water management, livestock grazing, commercial recreation, mining, and commercial firewood harvesting. Additionally there is a mineral springs resort located at Wilbur Springs.

I. Water Management

The Yolo County Flood Control and Water Conservation District (District) owns and operates the Cache Creek and Indian Valley Dams. The District is an independent Special District with its own Board of Directors and Management. The District controls the majority of surface water rights on Cache Creek through this portion of the watershed. The District does not necessarily represent the viewpoints of the Yolo County, nor does Yolo County necessarily represent the viewpoints of the District.

II. Grazing

There is currently just one BLM allotment, which includes one grazing lease, within the CCNA. This is the Perkins Creek Allotment near the west boundary.

The former Payne Ranch, which was acquired by the BLM and the Rocky Mountain Elk Foundation in 1999-2001, currently has no authorized grazing. This property was heavily grazed for many years, until the lease expired in June, 2001. If any grazing is authorized in the future, it will be subject to BLM's Standards and Guidelines for grazing.

There are several other ranches on private lands adjacent to the CCNA which are currently being grazed.

III. Commercial Recreation

Two rafting concessionaires currently work the stretch of Cache Creek from Buck Island downstream to the Rumsey area, and can do considerable business during the peak summer season.

An equestrian concessionaire

has run horseback-riding trips in the Fiske Creek/Yolo County Regional Park area, and has expressed interest in expanding this concession to adjacent BLM lands.

Recently hunting guides have expressed an interest in obtaining permits to lead guided hunts within the CCNA. One such permit was issued in September 2000.

IV. Mining

One major mine adjacent to the CCNA is Homestake Mining Company's McLaughlin Gold Mine. The majority of land within the mine area is privately-owned, with the remainder consisting of claims on federal land. Mining operations are presently winding down, with no further excavations. Processing of stockpiled ore and various phases of land reclamation will continue until 2004.

There are other active mining claims and several smaller mines scattered throughout the area, on adjacent public lands outside of the CCNA and on private land. Other abandoned mines, located primarily on private land, are found throughout this area.

V. Firewood Harvesting

As recently as 1999 a commercial firewood contractor was harvesting oak on the Payne Ranch under a pre-existing lease with the owner. Currently there is no firewood cutting authorized on federal, state, or county property, and this use will not be allowed in the future.

Firewood cutting is still occurring on nearby private lands, particularly further to the east along Hwy. 20.

Water Rights

When the BLM purchased the Payne Ranch, the existing water

rights were conveyed to the BLM. This includes approximately two dozen impoundments historically used by livestock. Within the remainder of the CCNA the BLM also has water rights for three small reservoirs and nine springs.

The CDFG maintains riparian water rights on their lands adjacent to the North Fork. This water is used throughout the summer to maintain an irrigated pasture for tule elk just downstream from the Hwy. 20 bridge over the North Fork.

State statute requires that Yolo County Flood Control and Water Conservation District maintain fisheries below dams in as good condition as the fishery would be absent the dam. The appropriative water right for Indian Valley Reservoir requires the District to maintain a 10 cubic feet per second minimum release. There is no such stipulation at Cache Creek Dam, where Cache Creek would often be dry during the summer under pre-dam conditions.

Regional Transportation

Highways 16 and 20 provide public access via the major arteries of I-5 (Willows, Williams, Woodland, and Sacramento), I-80 (Sacramento and San Francisco), and Highway 101 (San Francisco, North Bay, Ukiah, and Eureka). Highways 53, 29, and 20 provide local access from the west, while the Morgan Valley Road and Knoxville-Berryessa Road provides a limited access from the south (Vicinity Map).

Affected Environment

General Setting

The CCNA is within the California Coast Range province, approximately 60 miles northwest of Sacramento. The Coast Range province includes a series of north-northwest trending mountain ranges separated by short narrow valleys. The province is bounded by the Central Valley on the east and by the Pacific Ocean on the west. It extends northerly to the south coast of Oregon and southerly more than 500 miles.

The climate is typical of northern California, a Mediterranean-type climate with warm summers and mild winters. The summers are mainly influenced by a high pressure system which lies off the coast of California. This high pressure system forces polar air masses to the north, causing the warm dry summers. During the winter months this high pressure cell shifts to the south, allowing frontal systems to bring precipitation over the state.

Precipitation averages 30 inches annually. Approximately 95 percent of this is received from October through April, while the remainder falls during the months of September, May, and June. Precipitation falls primarily as rain, although some snow falls in the higher elevations. This snow usually melts rapidly and rarely remains for as long as a few days. Occasionally, some precipitation may be received during the summer months from local thunderstorms. The area is subject to extremely high summer temperatures and prolonged drought periods.

Physiography

Clear Lake is a natural lake which is quite possibly the oldest lake

in North America. The water level of the lake is controlled by the Grigsby Riffle, a rock formation that creates a lip or high area on the edge of the lake over which water must flow into Cache Creek. The dam near Clear Lake is not on the lake itself, but on Cache Creek, approximately five miles downstream of the lake and below the riffle. The dam functions to regulate the summer outflow from Clear Lake and to manage some winter flood flows for consumptive use downstream.

Cache Creek runs northwest to southeast and forms a rugged, steep-sided canyon through most of the area. These steep canyon walls occasionally open to broad, grassy meadows with scattered oaks, such as Baton Flats, Wilson Valley, and Kennedy Flats. Prior to the construction of Cache Creek and Indian Valley Dams, much of Cache Creek was dry during the summer months.

The North Fork flows from Indian Valley Reservoir and joins Cache Creek at a point 2.25 miles downstream of the Hwy. 20 bridge. Prior to construction of Indian Valley Dam, the North Fork typically dried up in the summer months.

Bear Creek, which originates in the watershed above Bear Valley and continues to the confluence with Cache Creek, flows year-round but with very reduced flows during the summer months . Other tributary streams seasonally flowing into Cache Creek include Trout Creek and Davis Creek.

Much of the uplands are dominated by rolling, chaparral-covered hills. The recently-acquired Payne Ranch includes an expanse of oak grassland and oak woodlands which are less extreme topographically from the surrounding BLM lands.

Elevations within the CCNA range from about 425 feet along the downstream boundary at Cache Creek just upstream of Rumsey, to almost 3200 feet at Brushy Sky High, just east of Cache Creek Dam.

Vegetation - Native

Wildlife Habitat Relationships (WHR) habitat types are used to describe vegetative communities within the CCNA.

California chaparral dominates the majority of the CCNA. Two chaparral types, chamise chaparral and mixed chaparral, cover large expanses of the mountainous slopes. Chamise (*Adenostoma fasciculatum*) is the dominant shrub species found. Other species include buckbrush (*Ceanothus cuneatus*), several species of manzanita (*Arctostaphylos* sp.), birchleaf mountain mahogany (*Cercocarpus betuloides*), yerba santa (*Eriodictyon californicum*), and California buckeye (*Aesculus californica*).

A significant factor affecting vegetation types is the local abundance of serpentine soils. These soils have chemical properties (low calcium; high magnesium, nickel and chromium) that restrict growth to serpentine-tolerant plants. This habitat is classified as either mixed chaparral or closed-cone pine-cypress according to WHR guidelines and is also known commonly as serpentine chaparral. Common vegetation here includes McNab cypress (*Cupressus mcnabiana*), gray pine (*Pinus sabiniana*), leather oak (*Quercus durata*), and white-leaved manzanita (*Arctostaphylos viscida*). In 1985 an 11,000-acre block of public land was designated as the Northern California Chaparral Research Natural Area to promote botanical and other academic research, while preventing any surface-disturbing activities from occurring.

WHR habitat types within the CCNA comprised primarily of trees include blue oak woodland, dominated by blue oak (*Quercus douglasii*); blue oak-gray pine, dominated by blue oak and gray pine (*Pinus sabiniana*); and valley oak woodland, dominated by valley oak (*Q. lobata)*. Less abundant oak species include canyon oak (*Q. chrysolepis*) and interior live oak (*Q. wislizenii*).

Dominant grass species found in oak habitats include slender wild oat (*Avena barbata*), wild oat (*A. fatua*), and soft chess (*Bromus mollis*), all annual species. Medusahead (*Elymus caput-medusae*), a nonnative annual grass, also grows abundantly in oak habitats. This species is discussed further in the following section.

Vegetation - Noxious

Several species of noxious non-native vegetation have out-competed and adversely affected native vegetation within the CCNA. Among those which have had the most serious consequences to native species are tamarisk or saltcedar, medusahead, yellow starthistle (*Centaurea solstitialis*), barbed goatgrass (*Aegilops triuncialis*), and perennial pepperweed (*Lepidium latifolium*). Scattered small populations of pampas grass (*Cortaderia selloana*), and giant reed (*Arundo donax*) have been found in riparian habitats.

Since 1989 riparian habitat along Cache Creek has been periodically monitored by photopoints during the summertime. Monitoring has focused on the occurrence and spread of exotic species within the riparian habitat.

Tamarisk or saltcedar (*Tamarix parviflora*) is not known to occur on Cache Creek from Cache Creek Dam

downstream to the confluence with the North Fork. The North Fork has approximately a few dozen scattered clumps located between the Highway 20 bridge and the confluence with Cache Creek. An originating source of saltcedar in this area of Cache Creek appears to be Grizzly Creek, which empties into the North Fork near the east end of the Highway 20 bridge. Saltcedar has been observed growing approximately 2 ½ miles up Grizzly Creek from the confluence with the North Fork. Cache Creek between the confluence with the North Fork and Bear Creek has scattered saltcedar, some in clumps, others as younger individual plants. Presently it is not considered a serious infestation on this stretch of the creek; however control should be implemented soon to prevent further spread. Beyond the confluence with Bear Creek however, saltcedar is found in much greater abundance, entering Cache Creek from Bear Creek. The stretch of Bear Creek from the confluence with Sulphur Creek downstream to the confluence with Cache Creek is seriously infested with saltcedar. Very few native trees occur in this 12-mile stretch of Bear Creek. An 8-mile stretch of this area is included within the recent Payne Ranch acquisition.

In 1998 the U.S. Department of Agriculture's Agricultural Research Station headquartered in Temple, Texas proposed the release of the saltcedar-predating Chinese leaf beetle on this stretch of Bear Creek to help control the spread of this noxious plant. In June 2001 researchers from UC Berkeley released a total of 150 adult beetles inside a sealed tent along Bear Creek. In the spring of 2002 the tent will be removed and the dispersion of the beetles from the tent will be closely monitored.

Pampas grass has spread throughout Cache Creek. It is not as significant in numbers as saltcedar and does not have as serious an effect on the aquatic environment, but it can spread quite easily under the right environmental conditions.

Giant reed (*Arundo donax*), resembling bamboo to the non-botanist, is found scattered along both the North Fork and Cache Creek. It is found in Grizzly Creek (which feeds into the North Fork), as well as Bear Creek and other tributaries. Although numbers have not been tallied for giant reed, it is believed to be an amount which could easily be controlled through eradication.

Medusahead, an exotic annual grass introduced from the Mediterranean region, has invaded upland oak and meadow habitats such as blue oak woodland and blue oak-gray pine. Infestation is significant in portions of the acquired Payne Ranch and adjacent private lands.

Yellow starthistle, or YST, has invaded habitats from the edge of the riparian areas and on up throughout the Cache Creek and Bear Creek drainages. This plant has spread at a

phenomenal rate throughout the West in the past few decades. Many wildlife species will forage on YST before it grows its characteristic spines, but it is poisonous to horses during any growth stage. When spring rainfall is minimal, grasshoppers have been observed heavily predating flowering YST in the CCNA.

Yellow starthistle was not yet present when native grasses declined some time ago, but it is still considered a serious impediment to the establishment of native grasses. Locally, there is interest from the California Department of Agriculture's Biological Control Program in releasing several insect species which feed exclusively on various growth stages of YST. The ultimate goal of this program is to control the spread of this weed by minimizing seed production.

Several YST conversion projects are located within the CCNA. These include a dry seeding located at the downstream end of Wilson Valley, an irrigated pasture on CDFG land near the confluence of the North Fork and Perkins Creek, a dry seeding in the County Line Ridge area, and several scattered smaller conversions in the North Fork area on BLM land. These seedings have succeeded in replacing YST-dominated grassland with higher quality wildlife forage.

Fire and Fuels Management

Periodic fire is necessary to keep chaparral species healthy and vigorous. Numerous researchers have documented the natural role of fire within the chaparral ecosystem. In chaparral, what may appear to be a relatively stable community at any given time or place is in reality only a phase in a larger cycle of growth **ÿ** maturity **ÿ** removal **ÿ** regrowth that takes decades to complete. Fire serves as the major cause of secondary succession in chaparral by creating the pioneer conditions necessary for seedling establishment.

By virtue of its vegetative characteristics (chemical, physical and physiological), California chaparral is one of the most fire-susceptible types in the world. As the dominant chaparral species, chamise is characterized by a high surface area-to-volume ratio, seasonally low dead and live fuel moisture content, and high extractive contents. As stands of chamise mature, their flammability increases. This inherent flammability ensures its continuation as a major component of the chaparral type. Aside from vegetative characteristics that contribute to its flammability, chaparral species have developed adaptive characteristics in response to fire. These adaptive characteristics include the production of seed at an early age, seeds that maintain viability in the soil for decades, and the ability to sprout from roots or root crown burls.

Until the late 1970's, the BLM did not use fire as a tool for the management of chaparral to achieve such benefits as fuel-hazard reduction and improved wildlife habitat. Past practice has been the strict protection of chaparral from fire. After many years of developing new, innovative, and effective fire-suppression techniques, it has become obvious that there is no way to totally prevent wildfires. As

exemplified by the major conflagrations that have occurred in California in past years, wildfires will eventually occur and indiscriminately burn large areas of chaparral.

Starting in 1984, fire was reintroduced as a significant tool for land and resource management within the CCNA, using the helitorch to burn in mosaic patterns. In general, the objectives of prescribed burning are to reduce the fire hazard by breaking up the contiguous stands of mature chaparral, and to improve wildlife habitat.

Several prescribed burns have been completed through a cooperative effort by BLM, the California Department of Forestry and Fire Protection, CDFG, and other state and local agencies. As of March, 2002, there have been 24 prescribed burns on public land within the CCNA, which treated approximately 45,000 acres.

In recent years there has been concern regarding the timing of these prescribed burns. Wildfires occur during the hot summer months, and the subsequent natural revegetation is affected by this timing. Since prescribed burns cannot be completed during summer months due to extreme temperatures as well as liability and safety factors, fall burns are preferred to approximate as closely as possible the natural burning periods. It has been found that prescribed burns conducted during this time result in a greater diversity of grasses and forbs, while important wildlife forage such as buckbrush tend to increase. However, monitoring has shown that prescribed burns conducted during the spring, while reducing the threat of future wildfires and temporarily improving habitat conditions, can result in adverse habitat conditions in the long run by decreasing vegetative diversity through a decrease or even elimination of important browse species such as buckbrush and other desirable species of *Ceanothus.*

There has also been recent concern regarding impacts of spring burning on breeding birds found in the chaparral habitat. There can be significantly higher mortality of nesting birds and their eggs from burning at this time. Mortality of breeding birds can be mitigated by carefully planning precise locations for the burning, i.e. focusing on narrow strips along ridgelines, and not burning the dense pockets of brush located on the hillsides. It has also been observed that spring burns can negatively impact use of fawning and calving habitat by deer and elk if too much protective cover is burned.

The BLM's strategy behind fall and spring prescribed burns is quite different. In the fall the primary objectives are to improve wildlife habitat conditions and fuel hazard reduction by breaking up the larger dense blocks of chaparral by spot-burning in a mosaic pattern. This creates more edge and beneficial effects for post-fire vegetation. In the spring the primary objective is fuel hazard reduction. This is accomplished by burning along major ridgelines and topographical boundaries of an area, rather than burning small patches within the dense chaparral. This technique is also an important mitigation to decrease impacts to nesting birds.

Prescribed burns implemented with a wildlife habitat improvement objective are preferably done in the fall, however the prescribed burn

window is so narrow that fall burns are often not possible.

Fire History

A fire history review of the CCNA was made of BLM records for the period of 1958 through 1999. This review gives a good indication that wildfires occur frequently and are principally man-caused.

During this 41-year period for which there are records, 78 wildfires were documented within and adjacent to the CCNA, burning approximately 93,000 acres of public land. The largest fires (10,000+ acres) were in 1964, 1972, 1973, 1981 and 1999. Of the 78 wildfires, 77 were man-caused. Of these 77, incendiary and smoking caused 72.

Wildlife

The wildlife resource can best be described as very diverse within the many habitats within the CCNA.

The bald eagle, currently classified as federally threatened, is a year-round resident within Cache Creek Canyon. This species was recently documented as successfully nesting here, in addition to wintering in significant numbers from mid-November through March. Nesting and wintering eagles have been attracted here because of the abundant forage fish in the creek as well as the large expanse of isolated habitat found within the canyon, essentially free from human disturbance.

The CCNA is within the original range of the tule elk. These elk occur in three subherds, having originated from a group relocated to Colusa County from Del Monte Park in Monterey County by CDFG in 1922. Two of these subherds, the Wilson Valley and Bear Creek subherds, are found within the CCNA. A third group is found along Cortina Ridge, just outside of the area to the northeast.

The Wilson Valley subherd includes 80-90 elk and ranges from the Spring Valley area along the North Fork to a point just below the downstream end of Wilson Valley on Cache Creek. Several habitat improvements for this subherd have been completed, including brush-to-grass conversions, other seedings to replace noxious plants, prescribed burns, and water developments. In recent years there has been considerable use of these habitat improvements by these elk, and this has been reflected in a substantial increase in elk numbers here. There has been a limited hunting season of the Wilson Valley subherd annually in October since 1989.

The Bear Creek subherd is found adjacent to Bear Creek along Highway 16 and occasionally in the interior portions of the former Payne Ranch. Numbers in this subherd have dropped from over 100 in 1973 to a current population of approximately 40 elk.

The Cortina Ridge subherd to the north and east of the intersection of State Highways 16 and 20 includes approximately 75 elk according to the most recent estimates (spring, 2001).

Several other game species occur within the CCNA which attract significant numbers of hunters. These include blacktail deer, black bear, wild pig, gray squirrel, wild turkey, mourning dove, and California quail.

In recent years, the number of wild pigs on public lands has declined due to increased hunting pressure.

Many non-game species of furbearers occur, including mountain lion, coyote, gray fox, bobcat, badger, raccoon, beaver, and river otter.

Dense chaparral habitat supports species such as the jackrabbit, brush rabbit, wrentit, California thrasher, and California towhee.

Many visitors come to the CCNA to view the variety of bird species found in the diverse habitats. Blue oak woodlands such as along the Redbud Trail are a popular destination in the springtime to view the variety of songbirds during the breeding season. The uncommon pileated woodpecker and pygmy owl are sometimes observed in this habitat. Roadrunners are occasionally spotted in open areas along trails, such as the Payne Ranch and Langs Peak Road. Other species commonly seen here include the common flicker, acorn woodpecker, tree swallow, Stellar's jay, and scrub jay.

Along the creeks one can find riparian-obligate species such as osprey, great blue heron, great egret, green heron, bittern, spotted sandpiper, least sandpiper, belted kingfisher, mallard, wood duck, widgeon, and common merganser.

Raptors found include the bald eagle, golden eagle, osprey, red-tailed hawk, Cooper's hawk, sharp-shinned hawk, kestrel, and the resident prairie falcon. The recently-delisted peregrine falcon is occasionally sighted foraging through the CCNA. Owls found include the great horned, long-eared, and pygmy owl.

Common herptile species include Pacific treefrog, bullfrog, foothill yellow-legged frog, western toad, northwestern pond turtle, western fence lizard, western skink, western whiptail, alligator lizard, gopher snake, common kingsnake, rubber boa, common garter snake, western terrestrial garter snake, western aquatic garter snake, and the northern Pacific rattlesnake.

Special Status Species

These include species which are federally-listed, proposed, candidate, or BLM Sensitive Species.

The two current or formerly federally-listed wildlife species known to occur within the management area, the bald eagle and the peregrine falcon, recently had changes in their status proposed by the U.S. Fish and Wildlife Service. In July of 1999, the Secretary of Interior proposed to remove the threatened bald eagle from the endangered species list. In July of 2000 this decision was put on hold, primarily due to uncertainties of future bald eagle protection if the birds' habitat is not given the same degree of protection which it received as a listed species. As mentioned previously, an active bald eagle nest site was recently discovered in a remote area of Cache Creek Canyon. The bald eagle also occurs in significant numbers within the canyon area during the winter. Peak numbers usually occur about mid to late January.

The peregrine falcon was removed from the endangered species list in August 1999. This

species is only known to pass through the area while foraging. There are no known nest sites, as the habitat is not conducive to that required for nesting.

The federally-threatened California red-legged frog (*Rana aurora draytonii*) could possibly occur here, but has not been documented. Recent herptile surveys conducted in Bear Creek and Cache Creek by the Davis Field Station of the Biological Division of the U.S. Geological Survey did not document any occurrences of this species (Roger Hothem, USGS Davis Field Station, personal communication).

The Sacramento perch (*Archoplites interruptus*) is known to occur in Clear Lake and likely occurs in the channel area above Cache Creek Dam. This species is currently classified as a CDFG Species of Special Concern.

There are no federally proposed or candidate animal species known within the CCNA.

Three BLM Sensitive animal species are found, including Townsend's western big-eared bat (*Plecotus townsendii*), St. Helena mountain kingsnake (*Lampropeltis zonata zonata*), and the foothill yellow-legged frog (*Rana boylei*).

Several BLM Sensitive Plants are known to occur, including drymaria-like western flax *(Hesperolinon drymarioides),* adobe lily (*Fritillaria pluriflora*), Hall's madia, *(Madia hallii*), and Snow Mtn. buckwheat *(Eriogonum nervulosum).*

Fisheries

Fisheries habitat within the CCNA includes 36.5 miles of Cache Creek, 12.78 miles of the North Fork, and 11.7 miles of Bear Creek.

A 3-mile portion of the Cache Creek channel between Cache Creek Dam and Highway 53 is included within the 36.5 mile stretch of Cache Creek included within this plan. It is characterized by slow-moving water impounded above Cache Creek Dam, the only outlet from Clear Lake. Fish species found here include the same species as those occurring in Clear Lake. For a complete listing see Table 1 on page 20.

Water flows in Cache Creek below the dam are controlled by seasonal releases. During the summer water is released to satisfy the downstream agricultural needs in Yolo County.

Summer and winter releases from Cache Creek Dam are stipulated by various court decrees. Winter releases may only occur for flood control purposes based on a fill curve. Depending upon the time of the year, releases may be at a lake level of 5.5 feet on the Rumsey Gauge, the official measurement of lake levels. The Clear Lake flood pool is considered to be from 7.56 feet to 9.0 feet on the Rumsey Gauge. Water is not actually held back for flood control, but rather stored per court decree for later summertime release. In heavy winter storm events and above-average rainfall years, there may be flood control releases from Cache Creek Dam to reduce the potential for flooding around the lake's shoreline. These water releases do have both positive and negative effects on the fisheries within the creek.

Both game and non-game fish species occur in Cache Creek. The majority of sportfishing focuses on channel catfish and smallmouth bass.

Several non-game species provide a critical source of food to wildlife such as the bald eagle and black bear.

From November through March wintering bald eagles feed almost exclusively on the larger non-game fish species. During periods of low water flow, black bear have been observed feeding heavily on the larger fish which become stranded in shallow pools. Other mammalian, avian, and herptile predators feed on the smaller fish.

Criteria for water releases during the winter from Indian Valley Dam are set by the U.S. Army Corps of Engineers. There is a fill curve for the reservoir with a 60,000 acre-foot flood pool. During high rainfall events, water is stored in the reservoir. If the reservoir level rises into the flood pool, the water is stored temporarily and then released after the downstream Cache Creek flows at the Rumsey Bridge have dropped below 20,000 cfs.

The North Fork supports more species typically associated with colder water since the water depth at the point of release is much deeper than it is at Cache Creek Dam. In the past CDFG has stocked the reservoir with Eagle Lake strain rainbow trout and kokanee salmon, while brown trout were stocked below the dam. This can result in increased angler use following stocking. Fish species found in the North Fork below Indian Valley Reservoir are shown in Table 2 on page 21.

In past years the effects of in-stream gravel mining resulted in accelerated channel degradation in the lower reaches of the creek. To prevent further degradation, the Lake County Community Development Department adopted a moratorium on in-channel gravel mining in the North Fork in the mid-1980's. This moratorium will remain in effect until such time that “it can be demonstrated by a landowner or mining permit applicant that chronic channel down-cutting within the creek system has ceased and the channel elevation has aggraded to the earliest historic level for which sufficient data exists”.

Fish occurring in Bear Creek are warmwater species, however the rainbow trout is known to occur in some of the upper tributaries where colder water is found. A species list for Bear Creek is found in Table 3 on page 21.

Table 1: Fish Species of Clear Lake

Common Name	*Scientific Name*
Pacific lamprey*	*Lampetra tridentata*
Rainbow trout*	*Oncorynchus mykiss*
Goldfish	*Carassius auratus*
Common carp	*Cyprinus carpio*
Thicktail chub* (Extinct)	*Gila crassicauda*
Clear Lake hitch*	*Lavinia exilicauda ssp. chi*
Golden shiner	*Notemigonus crysoleucas*
Sacramento blackfish*	*Orthodon microlepidotus*
Clear Lake splittail* (Extinct)	*Pogonichthys ciscoides*
Clear Lake pike (formerly squawfish)*	*Ptychocheilus grandis*
Sacramento sucker*	*Catostomus occidentalis*
White catfish	*Ameiurus catus*
Brown bullhead	*Ameiurus melas*

Channel catfish	*Ictalurus catus*
Mosquitofish	*Gambusia affinis*
Inland silverside	*Menidia beryllina*
Threespine stickleback*	*Gasterosteus aculeatus*
Sacramento perch*	*Archoplites interruptus*
Green sunfish	*Lepomis cyanellus*
Bluegill	*Lepomis macrochirus*
Redear sunfish	*Lepomis microlophus*
Smallmouth bass	*Micropterus dolomieui*
Largemouth bass	*Micropterus salmoides*
White crappie	*Pomoxis annularis*
Black crappie	*Pomoxis nigromaculatus*
Clear Lake Tule perch*	*Hysterocarpus traski lagunae*
Prickly sculpin*	*Cottus asper*

***** Native species

Table 2: Fish Species of North Fork

Common Name	***Scientific Name***
Rainbow trout*	*Oncorhynchus mykiss*
Brown trout	*Salmo trutta*
Smallmouth bass	*Micropterus dolomieui*
White crappie	*Pomoxis annularis*
Clear Lake pike (formerly squawfish)*	*Ptychocheilus grandis*
Sacramento sucker*	*Catostomus occidentalis*
Common carp	*Cyprinus carpio*
Hardhead*	*Mylopharodon conocephalus*
California roach*	*Hesperoleucus symmetricus*
Speckled dace*	*Rhinichthys osculus*

Riffle sculpin*	*Cottus gulosus*

Table 3: Fish Species of Bear Creek

Common Name	***Scientific Name***
Rainbow trout* (Only in upper tributaries)	*Oncorhynchus mykiss*
Green sunfish	*Lepomis cyanellus*
Bluegill	*Lepomis macrochirus*
Smallmouth bass	*Micropterus dolomieui*
Clear Lake pike* (Sacramento pikeminnow, formerly squawfish)	*Ptychocheilus grandis*
Sacramento sucker*	*Catostomus occidentalis*
California roach*	*Hesperoleucus symmetricus*
Speckled dace*	*Rhinichthys osculus*

* Native species

Riparian

The Valley Foothill Riparian WHR habitat type is a critical habitat component for wildlife species throughout the year. It shades and lowers the temperature of the water, increasing the survival rate of fish and other animals. It also anchors soil in place and slows the flow of water, further reducing erosion.

There has been a tremendous increase in riparian vegetation during the past 13 years along that portion of the North Fork which CDFG purchased in 1987. This has coincided with the elimination of both livestock grazing and gravel mining. Summer releases of stored water from Indian Valley Reservoir also provide limited water availability during the hot summer months.

Common tree species occurring in this habitat include cottonwood, alder, and several species of willow. These trees provide the riparian obligate species with critical nesting habitat for small birds and cover for most other species. Other wildlife such as deer and elk forage directly on the vegetative matter of these trees, especially willows.

In certain locations previously mentioned there has been an invasion of the noxious nonnative saltcedar.

Cultural Resources

There are three categories of cultural resources within the CCNA: prehistoric, historic, and Native American traditional use.

Prehistoric resources represent Native American occupation of this area before the arrival of Europeans (ca. 1854). Information about prehistoric resources is obtained through scientific investigations by archaeologists, ethnographers, and other sources.

Historic resources are defined as cultural remains older than 50 years, which represent human activity within the Plan area after the arrival of Europeans (or AD 1854).

Modern descendants of Native inhabitants continue to perform traditional activities within the CCNA. Known uses of the area include 1) plant procurement such as collection of traditional basketry materials and food items, and 2) collection of magnesite from a traditional quarry area.

Prehistoric Cultural Resources

The CCNA was inhabited prehistorically by the Chen-po-sel tribelet of the Hill Patwin, a Penutian speaking group (Barrett 1908; Heizer 1967; Kroeber 1925, 1932; Merriam 1967; McClellan 1953; McKern 1922; Powers 1877; Rogers 1891). Modern descendants are disbursed between several rancherias east of the Plan area. Limited archaeological research within the CCNA has been focused from the North Fork at Highway 20 to the downstream end of Wilson Valley (Badovinac 1994; Basgall 1993; Bouey and Basgall 1990; Drucker 1948, n.d.; Greenway 1988; Jackson and Fredrickson 1978; Johnson 1978, n.d.; Neitz 1935). To date, thirty-five prehistoric sites have been identified. Site types range from small lithic scatters to large permanent village sites dating from the Contact Period to as early as 11,000 B.P.

The aforementioned sites are

now part of what has been designated an Archaeological District on the National Register of Historic Places.

As mentioned, only limited archaeological research has been completed within the CCNA. It is highly probable that the unsurveyed areas will have a broad range of significant cultural resource values. In terms of planning, any unsurveyed areas and recent acquisitions should be considered highly sensitive archaeologically.

Historic Cultural Resources

Euro-Americans arrived in the Cache Creek area around 1854 (Hanson 1944). However, homesteading is not known to have occurred until the 1870's (GLO Plats), most notably in Wilson Valley, at Baton Flat, and along the North Fork. A number of homestead sites are also known to exist on the former Payne Ranch.

In addition to homesteading activities, the North Fork area was also the location for a post office (Nita), inn and stage stop (Hanson 1892; Hanson 1944; Mauldin 1950; Palmer 1881; Powers 1877; GLO plats). Several schools were also constructed, the first in Grizzly Canyon and the last, which served the local population into the 1930's, within the same general area.

Several mercury mines were also developed within the CCNA in the 1800's. One of these, the Zodiac Mine which has since been relinquished, was adjacent to Rocky Creek.

Traditional Native American Land Use

The CCNA is rich in natural resources utilized by Native Americans (DuBois 1935; Hanson 1944; Hudson 1902; Knudtson 1977; McCarthy 1982; McClellan 1953; McKern 1922, 1923; Merriam 1967; Kroeber 1925; Powers 1877). For example prehistorically, native flora provided many sources of food including acorns, pine nuts, bulbs, and a variety of seed grasses. A variety of fauna were also used for food including several types of fish, fresh water mussel, pond turtle, bear, elk, deer, mountain lion, and various birds including waterfowl.

In addition to the food resources, Native Americans also procured plant and mineral resources for such activities as basket making and tool production. For example, willow, redbud, and various species of fern are known to have been used in the production of basketry. Local minerals such as chert, sandstone, and magnesite are known to have been used in tool-making.

Today modern descendants of native inhabitants continue to perform traditional activities within the CCNA. For example, plant procurement such as collection of traditional basketry materials and food items is occurring, as is collection of magnesite from a traditional quarry area on Perkins Creek Ridge.

Negative impacts to cultural resources result from natural and modern cultural processes. Examples of disturbances include casual surface collection by recreationists, rooting by feral pigs, rodent burrowing, streambank erosion from high water releases, and the natural wearing down of land surfaces over time. Scientific research and

monitoring continue to be the most effective tools for mitigating these impacts.

Recreation

The CCNA is extremely rich in recreational opportunities. Historically, use of this area focused primarily on hunting by surrounding landowners, due to lack of good public access. However, significant land acquisitions and greater public awareness have greatly diversified recreational use. This trend has been borne out by field observations as well as visitor-use surveys. These surveys were conducted for approximately five years at the Redbud Trailhead. Between July 1990 and March 1995, visitors reported the following activities during the survey:

Activity	Number	%
Hiking	1143	49%
Sightseeing	795	34%
Hunting	619	26%
Birdwatching	564	24%
Backpacking	328	14%
Horseback riding	99	4%
Rafting	86	3%
TOTAL	2321	154%

The percentages add up to more than 100% because some people listed more than one activity on their survey cards. While not a scientific survey, it does give a good indication of the number of people and the type of recreational pursuits they are seeking in the CCNA. Comments provided on these cards have indicated, in many cases strongly, just what the public likes and dislikes about the current management and uses within the CCNA.

Other less frequent recreational pursuits (in decreasing order of popularity) included mountain biking, fishing, swimming, target shooting, camping, inner tubing, photography, kayaking, rock hounding, canoeing, picnicking, dog running, and gold panning.

The CCNA is used year-round for hunting, subject to seasons determined by CDFG. Blacktail deer, wild turkey, quail, and dove are the most common game species taken by hunters, and to a lesser extent elk, black bear and tree squirrels. These species are restricted to specific seasons. Other game species such as wild pig and jackrabbits have open seasons. Use of dogs in the pursuit of mammals is not allowed on the Fish & Game-managed lands at Cache Creek (Cache Creek Wildlife Area). Since 1989 CDFG has authorized a limited-entry tule elk hunt on a statewide drawing basis. A small number of tags are issued annually for this special hunt.

The lower stretch of Cache Creek, from Buck Island downstream, is extremely popular for both commercial and private rafting. Two commercial outfitters currently run the segment of Cache Creek from Buck Island to Camp Haswell. They use both the upper and lower Yolo County day-use sites (the lower site is also used for group camping) as well as

the undeveloped group camping area across the low water bridge at the northern Blue Ridge trailhead. The commercial rafting season runs every weekend from about early May through Labor Day weekend, depending on sufficient water releases from Clear Lake and/or Indian Valley Reservoir.

In addition to commercial rafting, this lower stretch is also popular during the summer months for private rafting, inner tubing, and kayaking. Kayakers use the lower section whenever there is sufficient water.

There is increasing interest in private trips from the Redbud Trailhead to Highway 16, both during the summer months when water releases from Indian Valley Reservoir are sufficient, and in the winter months during peak storm releases. Yolo County Flood Control and Water ConservationDistrict does not allow legal public access across Cache Creek Dam for a number of reasons, including but not limited to security and easement issues, potentially hazardous conditions created by the very limited space at the dam site itself, and the physical layout of the property and potential liability issues. Additionally there is no reasonable put-in access across public lands to reach Cache Creek above its confluence with the North Fork. There is also an extremely dangerous class 5+ rapid just upstream of Deadman Canyon where several deaths and other serious injuries have occurred. This rapid must be portaged.

With strategic land acquisitions and increased publicity of the area, hiking and horseback riding have increased dramatically over the past 5-10 years. Most of this use has been focused on the Redbud Trail, beginning at the Redbud Trailhead. Other access has come from the Perkins Creek Ridge trailhead near the Clearlake landfill, the Judge Davis Trail off Hwy. 20 near the Lake/Colusa county line, and the Brushy Sky High area (mainly by adjacent landowners who can legally access here). With the acquisition of the former Payne Ranch, use in this area has begun to climb considerably.

The Blue Ridge Trail is now complete for 8½ miles from the Yolo County group camp site near the Road 40 low-water bridge to the end of the Fiske Creek road. This trail is gaining in popularity due to its spectacular views from the ridge, brilliant display of spring wildflowers, wildlife viewing opportunities, and solitude. Future expansion of this trail along Blue Ridge is likely, especially with the acquisition of the Knoxville Ranch by CDFG. Although this is a rugged trail designed mainly for hikers, some expert horseback riders and mountain bike enthusiasts use it as well.

Two additional trails have been developed on the Blue Ridge Ranch, formerly the Johnson property. The Fiske Creek Trail is an excellent 4-mile long mountain bike trail and is also open for equestrian and hiking use. It extends from Road 40 down to Fiske Creek and follows the creek south to Fiske Creek Road. This creates an approximately 16-mile loop ride for mountain bikes, starting at the Lower Yolo County Recreation Site, and including Road 40, the Fiske Creek Road, and the Fiske Creek Trail. Improvement of the Fiske Creek Trail (to reduce serious erosion

and to remove an old trailer) resulted in increased illegal vehicle use along the trail before it was barricaded in the spring of 2000.

The Frog Pond Trail was originally established by Yolo County, and is across Cache Creek from the three Cache Creek Canyon Regional Park recreation sites. Access was formerly limited due to moderately high irrigation flows during the summer months making crossing the river difficult, and until 1994 no legal public access from Road 40. With the BLM's acquisition of the 2032-acre Blue Ridge Ranch, legal public access was established and a Memorandum of Understanding (MOU) developed with Yolo County for cooperative recreation management of this portion of the CCNA. Since 1994 the 5-mile loop trail has been reconstructed and maintained for hiking, equestrian, and mountain bike use.

In 1993 the acquisition of property by CDFG along Highway 20 near the Lake/Colusa county line created an access point for the new Judge Davis Trail. The California Department of Transportation constructed a trailhead and small parking lot at this site as part of Highway 20 reconstruction. This hiking and equestrian trail leads to a ridgetop after climbing for about 1½ miles. At this point users can continue down to Cache Creek near the downstream end of Wilson Valley or follow a newly-built connector trail to access Cache Creek Ridge. CDFG has been closing this trail to equestrian use from the third Saturday in November until the third Saturday in April to protect the trail and surrounding land from impacts due to equestrian use during wet conditions. However, the BLM and CDFG are presently working together to develop strategies to provide a direct equestrian access link from the Judge Davis Trailhead to the recently-acquired Payne Ranch. This would divert equestrian use away from the steep erosive route on CDFG land and over to the more suitable trail on the BLM land.

The Redbud Trail is very popular for both hiking and horseback riding. Congestion in the parking lot at the trailhead became such a problem at times that the entire area was reconstructed and expanded in 1999 to facilitate parking for additional and larger vehicles such as horse trailers.

In 1997, the BLM issued a Special Recreation Use Permit to an equestrian concessionaire for horseback rides in the Fiske Creek area. While in operation this concession offered hourly, 2-hour, and half-day rides along the Frog Pond and Fiske Creek Trails. The BLM plans to continue to work closely with recreation concessionaires in proposed expansion of activities to ensure that quality public recreation opportunities are maintained while protecting the natural character of the land without impinging on the uses of the general public.

Plinking and target shooting, both forms of non-hunting shooting, frequently occur within the CCNA. This activity occurs regularly at an unauthorized location beyond the Perkins Creek Ridge trailhead parking lot behind the county landfill. This site has been used by local residents for many years. Although the shooting area is several hundred yards beyond

the parking area, shooting and vandalism at the parking area are a constant problem. A continual problem at the shooting area has been the proliferation of target shooting litter such as glass, cans, and bullet casings.

Fiske Lake off Road 40 receives a fair amount of shooting when the road is open. Other target shooting is scattered throughout the CCNA. Conflicts occurring between shooters and hikers or nature watchers seeking solitude, particularly along the Redbud Trail, were often identified on the visitor use survey cards. There have even been complaints from hunters about excessive noise and disturbance from target shooting.

Target shooting is prohibited in State Wildlife Areas, unless there is a designated site. Currently there are no designated sites within CDFG's Cache Creek Wildlife Area.

The CCNA is extremely rich in wildlife, floristic, cultural, and scenic values. Several articles have been written about this area in regional and national media, and word-of-mouth is continuing to attract larger numbers of visitors to view bald eagles, tule elk, and other wildlife. For several years, the BLM has led wintertime bald eagle viewing hikes and in certain years wildflower nature hikes in the spring. Local schools, conservation organizations such as the California Native Plant Society (CNPS) and Audubon Society, and many others interested in the natural values of the CCNA are continually attracted to the area in ever-increasing numbers.

Mountain bike use has generally been concentrated along the Redbud Trail, and the Fiske Creek (Blue Ridge Ranch) area. A modest level of mountain biking occurs along the Redbud trail to Wilson Valley when trail conditions and water levels allow. The BLM has not actively promoted mountain bike use here because of possible future wilderness designation which would preclude this use. The opposite is true in the Fiske Creek area, in the eastern side of the CCNA. After BLM acquired the Blue Ridge Ranch in 1994, two trail systems (Fiske Creek Trail and the Frog Pond Trail) were combined with the already popular Road 40 to provide excellent mountain biking opportunities.

Other creek-oriented recreational activities include fishing and swimming in Cache Creek. Overnight camping in the backcountry is often associated with some other activity (i.e., hunting, horseback riding, and hiking).

Acquisition of the former Payne Ranch has dramatically increased public interest in furthering recreational opportunities within these areas. The acquired portions of the Payne Ranch are already becoming popular for hiking, hunting, equestrian use, mountain biking, and even fishing. However, a lack of safe public access points off State Highways 20 and 16 is resulting in haphazard vehicle parking on turnouts and in potentially dangerous locations.

Access and Land Acquisition

Acquisition of important private inholdings and access points by the BLM and CDFG has dramatically improved, and continues to enhance public access to the CCNA. All acquisitions are completed only with

willing sellers; no one is forced to sell and there is no condemnation of private property.

Vehicular access is largely limited to the perimeter of the CCNA, particularly along Highway 20. Existing public access points from which users can embark on non-vehicular recreational pursuits include:

1) **Redbud Trailhead** - This trailhead provides access to the North Fork and Cache Creek for water-based activities. The recently reconstructed cabled parking area includes space for trailers and other vehicles and currently has an entrance sign, covered information kiosk with visitor information and map, and restroom facilities.

2) **Perkins Creek Ridge Trailhead**- This access was recently relocated to a more appropriate site near the entrance to the Clearlake landfill from its former site approximately one mile by road to the east. This was necessitated by continued vandalism, unauthorized shooting, and several other problems associated with this site. There are no facilities here, but it provides a non-motorized access to the BLM lands on Perkins Creek Ridge and the northwest portion of the CCNA. This trail links up with the Redbud Trail after approximately 4 miles.

A new public access to Perkins Creek Ridge has been proposed at a location fronting Hwy. 53. This site will allow sufficient parking for vehicles including horse trailers and should not have problems with vandalism and shooting.

3) **Judge Davis Trailhead**- This trail just west of the Lake/Colusa county line provides a non-motorized access to the lower Wilson Valley area of the CCNA and also a new link to the Cache Creek Ridge area of the former Payne Ranch from Highway 20.

4) **Other Highway 20 access**- There are three undeveloped access points to additional public lands within the CCNA. These include the gated access to the County Line Ridge area just ¼ mile east of the Judge Davis trailhead on the north side of Highway 20, the access across from the Oasis Cafe, and the Grizzly Canyon access, approximately 2 miles west of the Oasis. These are all for non-motorized access.

5) **Rieff/Rayhouse Road access**- This road, which lies within both Lake and Yolo Counties, is known as the Rieff Road in Lake County and the Rayhouse Road, or County Road 40, in Yolo County. There are a number of recreational access points from this road. These include the trailhead to Frog Pond Trail, the Fiske Creek Trailhead, the Blue Ridge Trailhead, and the 4WD roads to Buck Island and the southern Blue Ridge Trailhead.

An additional non-motorized access point leading to the Twin Sisters area in the southern portion of the CCNA is located just inside the Lake County line on the north side of Reiff Road.

6) **Benmore Canyon area near Spring Valley**- Technically, the large block of public land at Benmore Canyon has public access, being contiguous with the Walker Ridge Road. However, there are no public roads or trails facilitating this access from any point. Because of this situation, these BLM lands are essentially unavailable for most public

users.

Scenic

Perhaps the premier attraction of the CCNA is the scenic quality of the landscape. It has extremely diverse terrain and natural values including expansive vistas from high ridges such as Blue Ridge, Perkins Creek Ridge, Cache Creek Ridge, and Brushy Sky High. There are also panoramic views of Cache Creek from places such as the Redbud Trail, Cache Creek Ridge, and Buck Island. The river corridor provides beautiful views of the surrounding hills, the lush riparian habitat, and fascinating geological features to those rafting or hiking through the canyon.

Water and Flow Management

Water levels in Cache Creek can fluctuate significantly by season. Water releases are controlled by Cache Creek Dam at the outlet of Clear Lake and Indian Valley Dam on the North Fork. There are no dams on Bear Creek.

Typically, water is stored behind the two dams during the rainy season, to be used for Yolo County Flood Control and Water Conservation District's subsequent agricultural irrigation from April through September.

In below average rainfall years (which are actually similar to pre-dam and pre-flow management conditions) the water situation can be dramatically different. For example, during California's last extended drought (1987-1992), summer irrigation releases were decreased, in some cases dramatically. During the years of 1977 and 1990 there were no summer releases from Clear Lake. But in the summer of 1990 Indian Valley Reservoir was able to maintain the required 10 cfs. This resulted in very reduced water flows in Cache Creek from Cache Creek Dam to the confluence with the North Fork throughout the summer. The volume of water was significantly decreased and noticeably warmer due to the very shallow depth.

In heavy rainfall years including 1983, 1986, 1993, and 1995 through 1998 there have been flood releases from both dams during extended storm periods. The flooding situation can become very serious around the shoreline of Clear Lake. Cache Creek Dam was designed to accommodate a maximum release of 20,000 cubic feet per second (cfs), but because of the shallow nature of the channel leading from the lake to the dam, the maximum amount of water that can leave the lake to get through the channel to the dam, even during major flooding (11.0 ft. Rumsey Gauge), is less than 5,000 cfs. During major storm events, Clear Lake can fill at a rate 10-15 times faster than water can pass over the Grigsby Riffle for discharge through the dam. Consequently, flooding around the lakeshore can occur rapidly. When Clear Lake is considered full (7.56 feet on the Rumsey Gauge), the riffle is calculated to pass about 2,500 cfs. At the flood stage of 9.0 feet Rumsey Gauge, the calculated maximum discharge over the riffle is about 3,500 cfs.

In extended storm periods, water can be released from both dams. This amount of released water combined with all water from the tributaries that feed into Cache Creek can cause significant erosion by

undercutting banks, creating landslides, and undermining and toppling trees and riparian vegetation. However, it is believed that without these two dams the amount of water entering Cache Creek and its North Fork would be considerably greater, resulting in potentially greater environmental damage.

The existence of the two dams improves the situation over what would be the natural condition. Indian Valley Dam releases 10 cfs of stored water throughout the year, even after there is no longer net inflow. Cache Creek Dam leaks approximately 3 to 12 cfs throughout the year, depending upon the elevation of Clear Lake. Had the dam not been present, the modest amount of water retained in Clear lake would have spilled past the Grigsby Riffle to the creek during the very early spring. Cache Creek downstream of the riffle would have been dry. During drought conditions, the condition of the creeks is improved by the presence of dams over the natural condition. To the extent stored water is being released or leaking through the dam downstream, the two dams provide water for wildlife during critical summer months.

Rangeland Management

Within the CCNA, 840 acres are currently leased for livestock grazing. This lease is located near Perkins Creek, west of Cache Creek and east of the City of Clearlake, and is included within the Perkins Creek Allotment. The lease has preference for 130 AUM's (an AUM is the amount of forage which a cow/calf pair consumes in one month). A second lease of 142 AUM's was cancelled in 1997 due to the purchase of the former Pluth Ranch by BLM to be managed primarily as habitat for elk and other wildlife species. Livestock graze in the Perkins Creek Allotment during the spring and fall seasons when in use.

Livestock grazing on the Payne Ranch acquisition was authorized under a grandfathered lease which was in effect when the ranch was purchased by BLM. This lease expired in June of 2001, hence any authorized grazing will then be subject to BLM's Standards and Guidelines. If grazing does continue, it will be compatible with resource management objectives, i.e. weed control and sensitive habitat protection, as well as suitable limits on stocking rate and season of use. Current plans call for resting the range from all grazing until the spring of 2003, at which time grazing may be considered under carefully managed conditions.

Forage for livestock fluctuates in response to wildfire and prescribed burns. Without fire, brush species increase, while grass species are reduced. The lack of recent fires within the Perkins Creek Allotment has reduced available livestock forage here. Prescribed burns are planned here to increase the quantity and quality of available forage for wildlife.

Wilderness

The Rocky Creek/Cache Creek Wilderness Study Area (WSA) is included within the CCNA. This 33,582-acre block of public land was designated a WSA in 1979. Following this designation, the resource values here were intensively

studied to determine potential wilderness suitability.

The prominent feature within the WSA is Cache Creek, which runs east for approximately 20 miles and forms a rugged, steep-sided canyon through most of the CCNA. The steep canyon walls occasionally open to broad, grassy meadows with scattered valley oaks, such as Baton Flat, Wilson Valley, and Kennedy Flats. Numerous steep tributaries also feed into Cache Creek, including Dry Creek, Rocky Creek, Trout Creek, Crack Canyon, and Davis Creek. The remainder of the WSA is dominated by rolling chaparral-covered hills. Elevations within the WSA range from 720 feet along the creek near the mouth of Davis Creek to 3,196 feet at Brushy Sky High in the western portion of the WSA.

The Rocky Creek/Cache Creek WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA), and was included in the Clear Lake Resource Area Management Framework Plan Update which was finalized in 1984. An additional 1,526-acre tract contiguous with the WSA along Cache Creek in Wilson Valley, was acquired in 1985 after the wilderness inventory. This new area was included in the study process under the authority in Section 202 of FLPMA.

In October, 1986, the final EIS for the Clear Lake Resource Area's wilderness study areas was approved. For Rocky Creek/Cache Creek WSA, the three alternatives analyzed included:
1) all wilderness;
2) partial wilderness, which would designate 91 percent of the WSA as wilderness; and
3) no wilderness.

The BLM's preferred alternative in the Final EIS was the no wilderness alternative. It should be noted that CDFG also supported the no wilderness alternative, unless special stipulations could be included in the eventual legislation to allow certain wildlife habitat improvement measures utilizing mechanical means to be allowed within designated wilderness.

However since the release of the Final EIS, there has been considerable interest and lobbying by wilderness advocates in support of a wilderness designation for this WSA. With the recent introduction of Senate Bill 2535 by Senator Boxer, 45,434 acres have been proposed for wilderness designation in the CCNA. The decision now rests with Congress. Any wilderness designation need not follow the same boundary as the original WSA. It may include some additional areas adjacent to the WSA, as well as excluding certain lands currently within the WSA.

The WSA has been a very popular destination for those public land users seeking a diversity in types of primitive recreation (see Recreation section). It has been closed to motorized vehicles to maintain this primitive nature. At this time trailheads are located at Redbud Trailhead, Judge Davis parking area, Twin Sisters, and the Perkins Creek Ridge area near the county landfill, with a new location proposed off Hwy. 53 which would provide an additional access to Perkins Creek Ridge. In addition a jeep trail provides 4WD

access into the interior of the CCNA at Buck Island, just outside of the present WSA boundary. In Senator Boxer's proposed wilderness legislation, this access would continue, and would be cherry-stemmed out of the wilderness area. Additional trailheads are planned to provide access to the Payne Ranch acquisition from Hwy. 16.

The WSA is monitored twice yearly from the air, and an average of once every two weeks on the ground. Monitoring focuses on resource impacts and damage, unauthorized activities, as well as visitor use and wildlife use.

Geology

The Great Valley Sequence, which is extensively exposed in the area, consists of about 40,000 feet of Jurassic and Cretaceous shale, siltstone, sandstone, and occasional lenses of conglomerate and limestone. At the northern end of Morgan Valley, the Knoxville Formation of the Great Valley Sequence is in contact with serpentine.

Much of the mercury and all of the magnesite and asbestos in the Coast Ranges occurs in altered serpentine. Hot solutions rich in SiO_2 and CO_2, rising along faults, have replaced serpentine with silica-carbonate rock, which consists of chalcedony, opal, quartz, magnesite, and calcite. The Franciscan Formation is exposed at three locations within the CCNA. One is near Wilbur Springs where it is in fault contact with serpentine. The other two are located in Deadman Canyon where they are shown in depositional contact.

The Cache Formation of Pliocene age is located on the east side of the area, south of Highway 20. This Formation consists of lacustrine clays, silts, sand, and gravel beds with minor amounts of tuff that are from 1,000 to 6,500 feet thick. Terrestrial vertebrate fossils from this unit suggest an age of about 1.8 to 3.0 million years.

Basalt occurs at Quakenbush Mountain, near the junction of Ferris Canyon and Cache Creek, at the McGlaughlin Mine near Knoxville, and on Coyote Peak near Wilbur Springs. (Vredenburgh, 1981).

Locatable minerals within the CCNA include mercury, gold, asbestos and chromite. In addition gold-mercury ore has been reported adjacent to the area at Wilbur Springs to the north, at Knoxville to the south, at the Baker Mine to the southwest, and at the Sulphur Bank Mine to the west (Becker, 1888). Mercury has been the primary metal sought at the mines in these areas.

The 1980 announcement of the discovery of a significant gold deposit near Knoxville lead to the development of Homestake Mining Company's McLaughlin Mine. This deposit, which is no longer being mined, will have produced over three million ounces of gold when processing has been completed. The gold discovery at the McLaughin Mine lead to an extensive program of exploration which investigated the potential of all the mercury mines in the area, but no additional economic gold deposits have been located.

The Shamrock Mine situated along Rocky Creek within the Cache Creek WSA, was formerly the only known locatable mine within the

CCNA. This mine was located and worked prior to 1903 (Forstner, 1903). In 1927 and 1935, Orville Blevins of Redding produced mercury from the property. Foyle Mason, acquired the claims in the early 1940's and held it until his death in 1980. In 1968, M.C. Smith and Kay Miller, both of Redding, located the Deep Shaft and Zodiac claims over Mason's claims (the Shamrock and Merle) apparently with his permission. Smith and Miller erected a mill at the cost of $100,000 and produced a "couple of hundred" flasks of mercury. They determined the presence of gold on these claims, but were more interested in the mercury (Vredenburgh, 1981). These claims have since been relinquished, and because they were located within a WSA, no new claims can be located here.

Other locatable minerals within the CCNA have very little potential. Placer chromite is known to occur east of Deadman Canyon. Asbestos has been prospected north of Brushy Sky High. Here, a chrysotile vein occurs in highly sheared serpentine. The asbestos fibers in this vein average an eighth of an inch long and are slightly brittle. In 1952, soil was removed with a bulldozer and prospect trenches were cut at four points across the vein (Brice 1953, p 60)

Oil, gas, and geothermal energy are leasable resources which potentially could occur in economic quantities. There are oil and gas seeps at Wilbur Springs, and oil seeps are reported at Knoxville (Lawton, 1956, Averitt, 1945). Five oil seepages in the Wilbur Springs area prompted the drilling of five shallow wells on the Wilbur Springs Anticline between 1844 and 1937. All of these wells were less than 3,000 feet deep. None resulted in commercial production, but there were shows of oil in several of them (Lawton, 1956, p. 211). Department of the Interior Leasable Mineral Classification Maps identify as prospectively valuable for oil and gas resources those lands in the eastern portion of the CCNA where sedimentary formations of Cretaceous age are found. Potential for oil and gas resources is moderate using the BLM 3031 Mineral Potential Classification System.

There are hot springs at Wilbur Springs and Knoxville. A series of shallow temperature gradient holes, drilled in the Wilbur Springs area, indicate thermal gradients as high as 0.3°C/m, and two deep holes drilled to 400 meters and 1,200 meters reached maximum bottom temperatures of 120°C and 140°C respectively (Vredenburgh, 1981, p. 15). Harrington and Verosub (1981) studied the Wilbur Springs area, and concluded that the geothermal reservoir supplying heat for the hot springs continues south of Highway 20 in the vicinity of Destanella Flat.

Department of the Interior Leasable Mineral Classification Maps indicate that a portion of the CCNA in T.13 N., R.6 W. is within the Geysers Known Geothermal Resource Area. Potential of the geothermal resources here is considered to be high, although any development here within the forseeable future is considered to be very limited.

There are no valid mining claims and no mineral leases active on lands within the CCNA. Potential for mineral development in these areas is also considered to be very limited within the foreseeable future. Since the extensive exploration of a

large area following the discovery of the McLaughlin Mine at Knoxville in 1980 found no exploration targets within the CCNA, there has been no interest in gold exploration.

The potential for the development of any mercury deposits within the foreseeable future is low. The mercury deposits of northern California are relatively small in size and any mining development would be very costly because of the toxic nature of mercury. Permitting of a mercury mining operation would be very difficult and expensive, and it is doubtful that such an operation would be feasible. Potential for mercury would be moderate.

The asbestos locations which occur within the CCNA are minor deposits with no potential for development within the foreseeable future. Asbestos by nature is dangerous and difficult and expensive to mine safely. Health regulations make the mining of asbestos in the United States very difficult. Potential for asbestos is low.

Chromite deposits of northern California have never been economically feasible. The deposits are normally small and the chromite is not of the best quality. Mining has only occurred during the World Wars when the U.S. Government subsidized the price of chromite in order to produce chromite in the U.S. for stockpiling as a strategic material. Potential for chromite within the CCNA is low. The potential for all other locatable minerals is also low here.

Sand and gravel deposits along the North Fork from Long Valley Creek to the confluence with Cache Creek have potential for use in concrete aggregate (Klein and Goldman, 1958). However since the mid-1980's there has been a moratorium on in-channel mining here. The Lake County Community Development Department is enforcing this moratorium until such time that “it can be demonstrated by a landowner or mining permit applicant that chronic channel down-cutting within the creek system has ceased and the channel elevation has aggraded to the earliest historic level for which sufficient data exists”. This policy encourages the development of quarry sites to the east of the North Fork, as well as terrace ponding where it can be shown that no adverse impacts to wildlife will result and is consistent with other policies. Currently there is an active terrace ponding operation on private land on the west side of Highway 20 one mile east of the Spring Valley turnoff. A nearby processing area is leased from BLM along the east side of the highway.

Soils

Soils within the CCNA form rugged hills, mountains, and intervening valleys, with ridges trending to the northwest. This pattern is the result of a complex sequence of geologic folds and faults. The area is highly dissected with low-flowing perennial and intermittent streams providing water for Cache Creek.

These soils are shallow, well-drained, and are basically formed in material weathered from sandstone or shale. The slope varies from 8% to 50%. Soils on steeper slopes may have a potential for erosion and mass movements during high rainfall events.

Four major soil units are found within the Lake County portion of the

CCNA and are described in the Lake County Soil Survey:

(1) Phipps-Balley: Found east of the City of Clearlake. Very deep, sloping to very steep, well drained loam and gravelly sand clay loam; on uplifted, dissected hills. Vegetation consists primarily of typical chaparral brush species, oaks and annual grasses. Uses include livestock grazing, wildlife habitat, and watershed.

(2) Millsholm-Skyhigh-Bressa: Found mainly in the Clear Lake Basin and in the southern and eastern parts of the county. Shallow and moderately sloping to steep, well drained loam on hills. Uses include livestock grazing, wildlife habitat, and homesite development.

(3) Henneke-Okiota-Montara: Found in the eastern and southern portions of the CCNA. This soil is shallow, moderately sloping to steep, well drained and somewhat excessively drained very gravelly loam and clay loam on hills and mountains. These soils are derived from serpentine and peridotite. Vegetation consists primarily of typical chaparral brush species. Uses include wildlife habitat, watershed, and homesite development.

(4) Maymen-Etsel: This soil is shallow, moderately sloping to very steep, somewhat excessively drained loam and gravelly loam. It occurs on hills and mountains. Vegetation consists primarily of brush and scattered hardwood trees. This unit is used mainly for wildlife habitat and watershed. It is also used for recreation and homesite development.

The Yolo County portion of the CCNA primarily includes the Davis Creek and Fiske Creek watersheds. Soils here are somewhat excessively drained to well-drained on uplands and high terraces. Soil types here include:

(1) Dibble-Millsholm: This soil is well-drained, steep to very steep loams to silty clay loams; over sandstone.

(2) Rock land: Steep to very steep areas that are 50 to 90 percent rock outcrops.

No soil survey is available for the Colusa County portion of the CCNA, however since the counties adjoin in this area, some similarities can be drawn.

Chapter 3: Proposed Action and Alternatives

The **Proposed Action** for this Plan prioritizes protection of resource values while secondarily providing for compatible recreational uses.

Alternative 1 is the "no action" alternative, which continues the current management guidelines found in existing management plans for this area.

Alternative 2 emphasizes expanding opportunities for primitive recreation, eliminating all conflicting uses, demands, and allocations.

Alternative 3 provides the widest range of recreational opportunities while allowing other uses which do not detract from the recreational experience.

Alternative 4 provides the most stringent protection of resource values while minimizing any increased recreational use.

The Proposed Action and Alternatives 1 through 4 deal with varying levels of resource management actions and recreational use occurring primarily on public lands managed by BLM, CDFG, and Yolo County Parks.

The Cache Creek CRMP plan area is divided into six zones designated A through F and depicted on the Vicinity Map. The zones are primarily geographical in nature, but also represent differing levels of visitor use and relative amounts of public land.

For the most part the zone boundaries follow easily identifiable landmarks, such as roads, rivers, ridgelines, etc. Because of this there are varying amounts of private land within the overall boundary of each zone. However the management guidelines proposed in this CRMP apply only to lands managed by BLM, CDFG, and Yolo County Parks.

Overview of Zones:

Zone A includes the block of BLM land along Perkins Creek Ridge, as well as CDFG lands along the Redbud Trail from the Redbud Trailhead to Baton Flat. This stretch of the Redbud Trail can receive heavy visitor use throughout the year.

Zone B includes BLM lands in the Benmore Canyon area east of Spring Valley and other BLM lands to the west of Walker Ridge Road and Indian Valley Dam Road. Public use in this zone occurs primarily along these two roads and is very limited throughout the remainder of the zone due to lack of good access.

Zone C corresponds with a majority of the Rocky Creek/Cache Creek Wilderness Study Area (WSA) as originally designated in 1979. It is by far the largest of the zones, encompassing most of the WSA and that portion of the Payne Ranch acquisition upstream of Buck Island between Cache Creek Ridge and Cache Creek.

Zone D corresponds to the major part of the recent Payne Ranch acquisition, including that portion acquired by the Rocky Mountain Elk Foundation (RMEF). This zone is expected to receive a significant increase in public use. Many of the issues in this CRMP are particularly pertinent to this zone.

Zone E is located to the north of Hwy. 20 in the County Line Ridge area.

Zone F is an area with concentrated recreational use centered around

Cache Creek from Buck Island downstream to the Capay Valley. Also included are Blue Ridge Trail, Cache Creek Canyon Regional Park (Yolo Co.), and County Road 40 (Rayhouse Rd.)

Issues Critical to this CRMP

1. Closure of the CCNA to Motorized Vehicles

It is recommended that all lands managed by BLM within the CCNA be officially designated as closed to public motorized vehicle use through a formal Federal Register Notice. A vehicle closure is already in place on lands owned by CDFG and Yolo County Parks. Exceptions to this closure will be allowed for valid existing rights (leases, rights-of-ways, legal existing inholder access), authorized academic research, emergencies, and administrative uses. Administrative uses are defined as those uses involving employees performing official duties for which vehicular access is necessary. This can include BLM, CDFG, and CA Dept. of Forestry and Fire Protection employees and others with special authorization, as well as contractors conducting official work for these agencies.

Additionally the following BLM-managed roads which have been traditional routes of travel will remain open to vehicular use outside of any seasonal closures implemented locally: the Langs Peak Road to Buck Island; the Fiske Creek Road to the southern terminus near the top of Blue Ridge; and the Walker Ridge and Indian Valley Dam Roads to Indian Valley Dam. However any vehicular travel off these roads into the CCNA remains prohibited.

Existing and future parking areas and trailheads will provide access points for nonmotorized public use leading from the periphery to the remote interior of the CCNA.

2. Special Closures

Beginning in 1991 the Wilson Valley area was closed seasonally to all public use from April 1 - June 30. The purpose of this closure was to eliminate human disturbance to tule elk during the very sensitive time just before, and for a period after, the birth of the elk calves.

In a previous study by O'Connor (1987), on-the-ground monitoring, and various helicopter surveys by CDFG, Wilson Valley was identified as an important calving area in the springtime for this local elk herd. The closure was instituted cooperatively by BLM and CDFG when it became apparent that elk use here during the calving season diminished shortly after becoming legally accessible to the public.

Overflights of the Wilson Valley area in recent years by CDFG have shown that elk no longer use this area for calving. Therefore in keeping with the intent of seasonal closures, it is recommended that the current tule elk closure be modified, allowing for an acceptable level of public use at this time. An increased monitoring effort will provide information on elk location during the calving season. It is likely that the elk have moved to a location which while suitable as calving habitat, has less human disturbance during the springtime.

Once elk calving locations have been documented, further monitoring will show if public use is negatively impacting the elk. If it is determined necessary to close a particular area or trail(s) to public use to prevent disturbance during the

calving season, this area will be designated as closed to public use during the sensitive period.

This closure is designed to be flexible, i.e. if the elk move their calving areas, the closure area will be adjusted accordingly. The closure period and location will be mutually agreed upon by BLM and CDFG.

Besides special closures for the tule elk, other closures may be implemented, if warranted. This can include closures to protect federally-listed species during sensitive times, such as breeding bald eagles, or sensitive habitats, cultural sites, or trails which are being impacted by an incompatible level of public use.

Closures for breeding bald eagles will last through the breeding season, typically February through June. The minimum requirements are a ¼-mile buffer around any nesting tree.

3. Livestock Grazing

Livestock grazing is currently occurring only within Zone A.

The Perkins Creek Allotment is the only BLM allotment within the CCNA, and is included within Zone A. It is also within the current boundaries of the Rocky Creek/Cache Creek Wilderness Study Area (WSA). The allotment consists of only one grazing lease which is relatively small by BLM standards, including 840 acres and 130 AUM's. Grazing occurs during the spring and fall seasons when in use. However, there has been no grazing here for several years, as the lessee has opted to take non-use.

Previously grazing occurred on the Payne Ranch while under private ownership and also under a grandfathered lease for a short time after the BLM began the acquisition of this property. The terms of this lease were fairly broad and did not specifically limit the stocking rate or season of use. Typically heavy livestock grazing occurred from late November through mid-June. Over time this resulted in a conversion from palatable annual and perennial grasses to noxious weeds, as well as serious impacts to soils and riparian habitats. This lease expired in June of 2001. The range will be rested until the spring of 2003, at which time a carefully managed grazing regime may be implemented to help control the spread of noxious weeds.

Past livestock grazing has occurred in other parts of the CCNA. Before the Wilson Valley area was acquired by BLM in 1985, grazing occurred along the North Fork from Hwy. 20 downstream to Wilson Valley. There were a few incidences of trespass grazing following BLM's acquisition of this property, but since that time this has not recurred, nor has any authorized grazing been considered here. Additionally grazing occurred in the County Line Ridge area (Zone E) prior to BLM's purchase in 1993. Since that time there has been occasional trespass grazing from adjacent private lands, but no authorized grazing.

In the past few decades, noxious weeds have invaded millions of acres of rangelands throughout the West. This problem is particularly severe in parts of the Payne Ranch acquisition. Indeed the proliferation of weeds here is the most serious habitat issue to resolve. The spread of these weeds likely was exacerbated in part by the grazing practices which occurred here over

many years. Carefully-timed grazing has been used as a tool to help reduce weed populations under certain conditions. For the Payne Ranch acquisition, the most beneficial time for grazing to reduce weeds such as yellow starthistle and medusahead would be in the spring, ideally mid-April through June. This would amount to a high intensity-short duration grazing regime, requiring a lessee to move livestock frequently from one area to another.

If it is determined to be feasible, grazing will be used as a tool for weed reduction. The proposed April through June grazing season would allow annual grasses to grow early in the spring to provide some level of competition with noxious weeds. Grazing would be limited to the key infested areas, such as the meadows found in upper Thompson and Brophy Canyons, and along Bear Creek.

Due to the seriousness of the spread of noxious weeds on public lands, the BLM will soon be requiring the use of certified weed seed-free forage for recreationists using pack and saddle stock, ranchers with grazing permits, outfitters, and contractors and operators who use straw or other mulch for erosion control or reclamation purposes.

4. Wildlife Habitat Management

The CCNA is comprised of a variety of natural habitats, some of which are more suitable for restoration, protection, or improvement than others.

Since the 1970's a variety of projects have been implemented within the CCNA. These have included brush-to-grass conversions, prescribed burns, water developments, irrigated pasture development, and noxious weed control, among others. Initial projects began in the late 1970's in chaparral habitat, before BLM and CDFG began acquiring sensitive oak woodland, meadow, and riparian habitats.

In recent years much work has been completed on CDFG and BLM land primarily in Zones A and E to reduce the spread of noxious weeds in key habitats, replacing these weeds with native species. Several water developments have also been completed in these areas. These types of projects have greatly benefitted the tule elk population in Zone A particularly, as annual surveys confirm that elk numbers have approximately doubled within the past ten years. Undoubtedly these projects benefit many other game and nongame wildlife species as well.

The focus of BLM's wildlife habitat management program is to improve key habitat areas, especially those which have been degraded by past uses. Prescribed burning will continue to be used as a tool for treating dense overage chaparral habitat. The type of burns to be implemented here will prioritize those which maximize benefits to wildlife habitat, i.e. early season burns completed before January 31st each year. Burns to reduce the fuels build-up and reinforce firebreaks may be implemented in those areas closer to the urban interface, such as the Perkins Creek Ridge area east of the city of Clearlake. Burning will also be used as a tool in the battle against the spread of noxious weeds.

Noxious weed control in key

habitats will be a top priority, especially on recent land acquisitions. The BLM has been mandated to control the spread of these weeds on public lands and will focus this effort where control is most likely to be effective in improving habitat conditions and beneficial to the needs of wildlife. Control methods may include selective grazing, mowing, burning, use of herbicides, reseeding with native vegetation, and bio-control among others.

In recent years several water development projects have been completed. These have included the construction of wildlife guzzlers with tanks buried in the ground, and on recently-acquired lands, reconstruction of old breached livestock ponds to adapt to the needs of wildlife.

Critical wildlife habitat within the CCNA is found in riparian and oak woodland/grassland habitats. Both Cache Creek and the North Fork are considered to be in Proper Functioning Condition (PFC) according to BLM's guidelines for evaluating the condition of riparian areas. There is not much habitat work needed here, other than removal of scattered saltcedar. Bear Creek on the other hand has not attained PFC and is currently classified as Functioning At Risk (FAR), primarily due to the dominance of saltcedar and downcutting of the creek channel.

The Payne Ranch acquisition includes the most critical upland habitat within the CCNA. Extensive oak woodlands and meadow habitats are found between Cache Creek Ridge and Hwy. 16. This property was historically managed for livestock grazing, consequently there are several dozen reservoirs scattered throughout the upland areas, which now serve to spread out elk habitat use. The majority of the Cache Creek tule elk herd used this area until the early 1960's (McCullough, 1969), then began to spread out onto adjacent BLM lands and neighboring private lands. Today about 40 elk use the Payne Ranch acquisition on a regular basis.

The occurrence of tule elk has drawn the interest of the Rocky Mountain Elk Foundation (RMEF) to this area. The RMEF has been a key partner in acquiring the Payne Ranch and other critical habitats, currently holding title to 1,678 acres of this recent acquisition. The BLM and the RMEF partnered on this acquisition to showcase habitat management for California's tule elk. While this property has serious problems with noxious weeds, the potential is there to restore important habitat found in meadows and riparian areas. Once serious efforts are made to control the spread of weeds, which will take several years, elk will likely begin to move back into this area once again.

Year-round upland water sources are found in the scattered livestock ponds. Some of these ponds are functioning as excellent riparian and aquatic habitats; others show the impact of unrestricted grazing and lack of maintenance. Opportunities exist to improve habitat conditions at these ponds. Some will improve by a change in grazing management under BLM's Standards and Guidelines; others will benefit from the establishment of vegetation around the banks. A few ponds are in a state of disrepair and are eroding away, contributing to soils loss and

severe channeling in areas. Some sites will require extensive work, including rebuilding the impoundments, adding spillways, and use of riprap to prevent further soils loss.

Changes in elk use patterns are anticipated to occur over the next several years due to changes in grazing management on the Payne Ranch. It has already been observed that since the expiration of the private grazing lease in June 2001, elk are utilizing much more of the habitat here. It may not be apparent for several years how the elk will respond in the long run to a change in grazing management, but during this interim period it is vital that extensive monitoring be undertaken to document changes in elk distribution and the location of any sensitive areas. With this thought in mind, public use will be slowly phased in only in those areas where conflict with elk, or other resource values for that matter, do not occur. This will likely lead to seasonal closures of sensitive areas and re-routing of certain trails to avoid locations which are sensitive to disturbance year-round.

5. Future Wilderness Designation

In 1986, Wilderness Recommendations and the accompanying Final Environmental Impact Statement were issued for the approximately 34,000-acre Rocky Creek/Cache Creek Wilderness Study Area (WSA). The BLM recommended non-wilderness for this WSA based on the following reasons, as quoted in the report:

"(1) the wilderness characteristics of the area are not outstanding, (2) if additional energy and non-energy mineral development were to take place, wilderness characteristics would be further degraded, and (3) wildlife management and recreation objectives can be better achieved without the restrictions that wilderness designation would bring. In many locations throughout the WSA there is evidence of past and present human activity. This is particularly evident when the area is viewed from the air."

Despite the BLM position, the WSA has been managed and continues to be managed in strict compliance with the Wilderness Interim Management Guidance to ensure non-impairment of wilderness characteristics until official designation or non-designation is made.

With the recent introduction of Senate Bill 2535 by Senator Boxer, 45,434 acres have been proposed for wilderness designation in the CCNA. The decision on wilderness now rests with Congress.

Acquisition of the 12,769-acre Payne Ranch and, to a lesser extent, the 950-acre Pluth property, has added significant acreage to BLM holdings adjacent to the existing WSA. Senator Boxer's wilderness bill also proposes that the Payne Ranch be designated a Potential Wilderness Area. According to this bill the BLM would be given a 5-year period to complete any necessary ecological restoration, after which time the Payne Ranch would become part of the designated wilderness.

6. Withdrawal of the CCNA from Mineral Entry

The Proposed Action of this CRMP is to manage the CCNA for

protection of resource values, while accommodating a compatible level of recreational use. Indeed the primary focus driving the BLM's and CDFG's land acquisition program is the protection, improvement, and restoration of biological values, as well as the preservation of other natural and cultural values. Therefore, management actions will focus on preventing surface disturbance to natural and cultural resources, scenic values, and primitive recreational pursuits. This is the BLM's intended purpose in developing this CRMP. To achieve this goal and to protect the BLM's and public's investment in recent land acquisitions of sensitive resource lands, it is recommended to pursue a withdrawal from mineral location or surface entry. This would prevent the surface disturbance and subsequent impacts to sensitive resource values which are often the result of mineral development. If mineral development was proposed within the CCNA, this would be in stark contrast to the Proposed Action.

No saleable minerals activities, such as the mining of sand and gravel or stone, should be allowed. Mineral leases such as geothermal or oil and gas could be allowed, but only if the authorization includes a "no surface occupancy clause". No surface disturbing activities will be allowed that would have adverse impacts on or would otherwise destroy or damage natural or cultural values, scenic values, or primitive recreational pursuits.

7. Boating Use on Upper Cache Creek

Boating upstream of Buck Island (referred to as upper Cache Creek in this plan) is possible at differing times of the year, with put-in generally at the Redbud Trailhead off Highway 20 in Lake County. Currently the stretch of Cache Creek from Cache Creek Dam to the confluence with the North Fork receives little, if any boating due to the lack of legal access over the dam and the difficulty in accessing this run of the creek which requires a long hike prior to any possible put-in. Additionally an extremely hazardous rapid requiring portage is located just upstream of Deadman Canyon.

Boating on upper Cache Creek has been an activity which for the most part has not been managed. Use has generally been by individuals or small parties, while the two current rafting concessionaires focus on the stretch of river from Buck Island downstream to the Camp Haswell area (referred to as lower Cache Creek for purposes of this plan).

Following are descriptions of the general boating periods and recommendations on use for upper Cache Creek. Special closures and conditions which will apply during these periods as part of the Proposed Action are discussed.

Boating use occurs during:
(A) Major winter storms when water levels can rise significantly enabling put-in at the North Fork. The predominant use at this time is by parties of expert rafters and kayakers. Time is of the essence due to shortened daylight hours and colder temperatures. This 22.5-mile float from put-in at the North Fork to take-out at Hwy. 16 can be completed in as little as 2 hours when water flows exceed 2000 cfs.

Recommendation: Boating available, recommended for experts

only. All boaters are required to wear personal flotation devices and headgear. No user permits are required at this time, however if conditions warrant, permits may be required in the future.

(B) Spring/Summer Irrigation releases.

When flows from Indian Valley Reservoir are sufficient (minimum 200 cfs), put-in is possible at the Redbud Trailhead. From here it is 2¼ miles to the confluence with Cache Creek.

Irrigation releases typically begin by mid-April and continue through the summer, with a gradual tapering in early August, continuing until flows are back to the pre-irrigation release level by the end of September. Flows can alternate or be a combination from both Indian Valley Reservoir and Clear Lake. This is dependent upon several variables including the daily water demand and the water level of each reservoir, and does impact access by boaters.

In previous years the Wilson Valley tule elk calving season closure in effect prohibited boating on the upper stretch from April 1 through June 30th. With the annual spring closure discontinued in this particular area beginning in 2002, boating will initially be carefully monitored due to the presence of nesting bald eagles further down this run. If it is determined that boating use at this time is negatively impacting eagle nesting activity, this use will be discontinued until the young eagles have fledged, approximately by the end of June. Boating can then resume at this time. Despite the lifting of the elk calving closure, there will still be an on-the-ground closure to all public use covering an area of ½-mile radius around the nest tree. This closure area will be marked so that users may know which area must be avoided. However this closure area is considerably smaller than the elk calving closure area. It should also be remembered that the elk closure may be reinstated if the elk return to this area to calve.

Recommendation: Boating available April through June if monitoring shows no impact to nesting bald eagles. If impacts to eagles are documented, boating use will be discontinued until after June 30. At this time user permits may be required if visitor increase results in congestion at the Redbud Trailhead, or lowering of wilderness experience from contact with other boaters.

The recommended type of watercraft at this time of the year are smaller 1-2 person inflatable kayaks or rafts. Canoes and inner tubes are not safe on this stretch because of the shallow rocky nature of the creek, as well as the long distance required before take-out is possible. Boating becomes very difficult (and slower) by mid-September when flows fall below 200 cfs.

All boaters will be encouraged to put in by 11 a.m. The rationale to this recommendation is (1) to minimize impacts to water-based wildlife species, (2) to ensure a wilderness recreational experience with opportunities for a true sense of solitude, and (3) to ensure sufficient time for boaters to reach the take-out point before dark. Additionally, all boaters will be required to wear personal flotation devices and strongly recommended to wear protective headgear.

Proposed Action - Protection and Management of Resource Values While Providing for Compatible Recreational Uses.

Goal:

Protect and appropriately manage all natural and cultural resource values as the primary goal. The secondary goal involves making provisions for diverse forms of primitive recreation which are compatible with this goal.

Incorporate the management guidelines of future planning efforts, or other pertinent legislation such as Resource Management Plans or a congressional wilderness designation for Cache Creek.

Objectives Common to All Zones:

A. Implement habitat improvements, including prescribed burns, noxious plant control, water developments, riparian enhancements, and other actions where appropriate.

Prescribed burns implemented specifically for wildlife habitat improvement will be conducted during the period following the first inch of rain during the fall months up until January 31.

Additional prescribed burns for fuel hazard reductions may be implemented as late as May if suitable burning prescriptions are met.

An integrative approach will be applied to combat the proliferation of noxious plants where these infestations are seriously impacting habitat values. Control methods can include burning, controlled grazing, application of BLM-approved herbicides (Garlon, Transline, Roundup, Rodeo), mowing, revegetation with native species, and bio-control. For each site-specific noxious plant control project proposed, an Environmental Assessment will be prepared and made available for public review.

Water developments can include construction of new projects and repair of existing facilities. Types of projects can include reservoirs with earthen dams (requiring coordination with the California Division of Water Rights), wildlife drinkers which catch rainfall (both the buried tank design and the flying saucer type), and spring improvements with spring boxes and nearby drinkers.

Riparian enhancements can include planting of native species, fencing at disturbed sites, removal of noxious plants, and various erosion control techniques.

B. Monitor critical resource values to determine long-term impacts from management actions (see Monitoring Plan in Chapter 5) , provide follow-up recommendations, and then implement these recommendations. This will include effects of habitat improvements, as well as impacts to trail conditions by recreational uses. This information will assist in making management decisions such as the implementation of seasonal closures and any necessary trail maintenance.

C. Protect biological and cultural resource sites from the impacts of increased visitor use by carefully planning the trail system and access locations. Direct recreational activities away from the immediate area of these sites or if necessary, close or reroute certain trails. To the extent possible, protect cultural sites from erosion and damage from burrowing animals.

If any specific recreational activity is shown to be unacceptably impacting resource values, steps will be taken to reduce this impact, and if necessary, limit the type of activity causing impacts.

D. Continue land acquisition efforts on priority parcels. Management of lands acquired by BLM, CDFG, or Yolo County Parks will be incorporated into the Proposed Action.

E. Withdraw the entire CCNA from mineral entry.

F. Revoke existing Power Site withdrawals affecting only BLM lands on or adjacent to Cache Creek.

G. Manage any authorized grazing to maximize resource benefits to rangelands i.e., controlling noxious plants, promoting perennial grass re-establishment, and preventing overgrazing. Grazing on acquired lands will be carefully considered if appropriate. Any grazing authorized by BLM will be implemented according to the Bureau's Standards and Guidelines for grazing.

H. Complete and implement an interpretive master plan for the CCNA. Develop adequate visitor map including trails, access points, etc. Map will be accompanied with information on trails, safety concerns, applicable closures, important wildlife and cultural values, etc. Provide adequate visitor information and education through development of interpretive kiosks, brochures, and environmental education hikes and presentations.

I. Provide adequate law enforcement and other on-the-ground staff to patrol and monitor the CCNA. Seek public and other agency assistance to inform BLM and CDFG of conflicting or unauthorized activities occurring on public lands.

J. Provide an adequate trail system to help disperse and minimize contact between visitors. Develop adequate signing to mark private/public land boundaries, trailheads and trails, activity restrictions, closures, etc.

K. Minimize development while ensuring adequate sanitation and safety facilities for visitors.

L. Close all public lands to vehicular use, except for those uses previously identified in *Issues Critical to the CRMP (#1)*. All unnecessary vehicular access points into the CCNA will be gated, barriered, or otherwise closed off to prevent unauthorized vehicular access.

M. Prohibit non-hunting shooting (target shooting, plinking) within the CCNA (plinking is already prohibited by state regulation within CDFG's Cache Creek Wildlife Area, and by county regulation in Yolo County's Cache Creek Canyon Regional Park).

N. Evaluate commercial recreation permit applications i.e. rafting concessions, trail rides, outfitters, etc. on a case-by-case basis to promote primitive recreation opportunities as long as these activities adhere to resource protection goals.

Zone A (Proposed Action)

1) Continue current level of habitat development and project maintenance, focusing primarily on CDFG and non-WSA BLM lands for permanent projects such as water developments, prescribed burns, and seedings. This includes lands acquired by BLM as part of the Pluth Ranch in 1997.

Approximately 80% of the BLM lands within Zone A are included within the WSA and are subject to certain limitations on permanent or surface-disturbing activities. Prescribed burning is an exception here, as long as it is implemented without surface disturbance, i.e. no bulldozers allowed to create firebreaks.

In addition, monitor local elk population movements and use of existing habitat improvements within the Zone.

2) Control, and where possible, eradicate noxious plants (saltcedar, giant reed, pampas grass) growing within the riparian zone of the North Fork and Cache Creek. Control the spread of other noxious weeds (yellow starthistle, medusahead, perennial pepperweed, barb goatgrass) in key wildlife habitat.

3) Maintain the current grazing lease within the Perkins Creek Allotment. However, it will not be transferred to new operators, it will be retired with the current operator.

4) Ensure that private inholders will retain reasonable access rights to their land. However, before initiating any road maintenance through

federal or state lands, landowners must first obtain the appropriate authorization from BLM or CDFG.

5) When requested, make provisions for suitable access by Native Americans to the traditional magnesite gathering site beyond the locked gate on Perkins Creek Ridge.

6) Allow camping on CDFG land beginning at a point ½ mile beyond the Redbud Trailhead. Overnight camping in the parking area is not allowed. If camping use in the authorized area increases to the point of causing unacceptable environmental problems or crowding, future management could limit camping to designated areas only. Such designated areas could include BLM land at Baton Flat and other suitable sites which are located at least 200 feet from the creek in order to minimize disturbance to the aquatic and riparian environments and to the wildlife using these habitats. These will be primitive camping areas with little or no facilities. Other sensitive areas will be signed as "closed to camping for resource protection".

7) Develop an appropriate trail link-up to the former Pluth property (acquired by BLM in 1997), consistent with protecting wildlife values on this parcel. This access could connect the Redbud Trailhead to an old jeep trail which forms a loop on this property. Additionally, develop a connector trail from the Perkins Creek Ridge Trail to the unnamed ridge northwest of Perkins Creek. This link can be completed with minimal new construction, as an old jeep trail already exists here, however it may require an easement over a short stretch of private land. This trail will provide access to the Pluth acquisition near Bally Peak and will also serve as an additional loop trail.

8) Design and construct a universally- accessible short interpretive loop trail on the flats beginning at the Redbud Trailhead.

9) Develop a new trailhead for the Perkins Creek Ridge Trail. Close the existing access road to public vehicular use, while maintaining appropriate access for property owners, and remove the existing parking area overlooking the landfill. Clean up, rehabilitate, and permanently close the target shooting area located just beyond the existing parking area. The current use as a shooting site is in direct conflict with interim management of Wilderness Study Areas. Develop an alternate parking area for access off Hwy. 53 for nonmotorized public use which will tie into Perkins Creek Ridge.

10) Develop a "Watchable Wildlife" viewing turnout along the north side of Hwy. 20 at the Pluth acquisition in cooperation with the State Dept. of Transportation. Provide interpretation and viewing opportunities focusing on the tule elk herd and wintering bald eagles. Work with Cal-Trans to ensure that a turn-out can be developed safely and cost-effectively.

11) Exclude commercial rafting put-in at Redbud Trailhead on the North Fork.

Zone B (Proposed Action)

1) Barricade known rare plant habitat along the Walker Ridge Road which is currently, or likely to be, impacted by vehicle use. Maintain existing barriers which prevent vehicular access into sensitive habitats along this road.

2) Pursue acquisition of key parcels to obtain a non-vehicular public access to the BLM lands in Benmore Canyon. In lieu of this, pursue an easement which would best facilitate this access. If legal access is acquired, provide suitable trails into this area.

3) Expand and maintain an overflow area for Blue Oak Campground.

Zone C (Proposed Action)

1) The primary wildlife management concern in this zone during the spring is the sensitivity of wildlife species to human disturbance during the breeding season. Beginning in 2002 a seasonal closure will be implemented to protect nesting bald eagles in the Wilson Valley area. This closure will last throughout the breeding season, from February 1 through June 30. A ½-mile buffer around the nest site will be posted as closed to all public use. Seasonal monitoring of the Wilson Valley area for elk activity will also confirm the necessity to reinstitute any elk closures.

2) Implement additional elk habitat improvements on suitable habitat on BLM and CDFG lands. Habitat improvements on BLM lands within the WSA will be limited to non surface-disturbing activities, primarily prescribed burns. Improvements on CDFG lands and BLM lands outside of the WSA can include water developments, prescribed burns, riparian habitat improvement, noxious plant control, and seedings.

3) Eradicate saltcedar and giant reed from Grizzly Canyon.

4) Protect high density cultural sites by avoiding any new trail construction which could impact these sensitive areas. If disturbance is associated with the proximity of existing trails, close and reroute trails away from cultural sites.

5) Develop a low-impact trail system to accommodate hiking and horseback riding (and mountain bikes on those portions of the zone outside the Wilderness Study Area). Trails will be designed to avoid sensitive environmental areas. Trail projects may include the following:

a) Completion of the Brushy Sky High Trail from Baton Flat to Brushy Sky High, providing a loop trail if feasible.
b) Construction of the Confluence Loop Trail from the Redbud Trail to the confluence of the North Fork and Cache Creek.
c) Establish trails along former ranch roads leading from Cache Creek Ridge to Cache Creek. These trails will tie in with the trail system to be laid out in Zone D.
d) Maintain and improve the existing 2½-mile hiking/equestrian trail in the Twin Sisters area.
e) Designate a link-up site from the Redbud Trail to the Judge Davis Trail in Wilson Valley. This will

require identifying a site for trail users in either direction to ford Cache Creek, as a footbridge will not be built to link these trails.

f) Develop additional trails, spurs, loops, as needed and as funding and priorities allow. All trails within the WSA must be built consistent with Interim Management Guidelines with the precise routing to be evaluated to avoid impacts to sensitive biological or cultural resources. Other trails such as those located on the former Payne Ranch which descend from Cache Creek Ridge to Cache Creek will use existing jeep trails as much as possible, with minimum new development.

6) Construct a suitable equestrian/foot bridge across Cache Creek in the vicinity of Baton Flat for safe non-motorized access along the Redbud Trail during periods of high water flows. This will eliminate the current practice of having to ford the creek, usually under unsafe conditions. In past years access at this location has been restricted for as long as 8 months of the year due to winter flood releases followed by spring and summer irrigation releases.

7) Provide an alternate equestrian access from the Judge Davis trailhead (in Zone C) to BLM lands on the former Payne Ranch (in Zone D) during the wet weather equestrian closure of CDFG lands (3rd Saturday in November through 3rd Saturday in April).

8) Ensure that private inholders will retain reasonable access rights to their property. However, before initiating any road maintenance across federal or state lands, landowners must first obtain the appropriate authorization from BLM or CDFG.

Zone D (Proposed Action)

1) Implement additional elk habitat improvements in suitable habitat on BLM and Rocky Mountain Elk Foundation (RMEF) lands on the former Payne Ranch. Habitat improvements can include prescribed burns, water developments, riparian habitat improvement, and noxious plant control. Additionally monitor elk population and use of habitat throughout the zone.

2) Maintain ponds on the Payne Ranch currently functioning as perennial wildlife water sources. Repair and improve as necessary those impoundments in need of revegetation, erosion control work, or improvements to spillways or other necessary engineering work in order to prevent failure of these dams in the future. Eliminate those dams which have breached and are not feasible to repair.

3) Implement erosion control practices where there are ongoing problems such as headcuts and gullying and washouts along roads.

4) Enhance Bear Creek riparian and fisheries habitats by removing saltcedar and other noxious plants, replanting with suitable native vegetation as necessary, properly managing grazing for maximum

resource benefit, and implementing aquatic habitat improvements such as those involving bio-engineering for erosion control.

5) Any authorized livestock grazing on the former Payne Ranch will be subject to BLM's Standards and Guidelines for grazing and must use "best management practices". Utilize carefully-timed high intensity, short duration grazing if practical and effective, to help control noxious vegetation including yellow starthistle, meadusahead barb goatgrass, and others. Utilize low-stress herding techniques requiring little or no fencing.

6) Protect high density cultural sites by avoiding any new trail construction which could impact these sensitive areas. Carefully evaluate the need for continuing the current level of use on other existing trails in the vicinity of these sensitive cultural sites. If necessary, reroute or close trail segments which could seriously impact these sites.

7) Encourage academic study of invasive weeds, native plant revegetation, oak regeneration, elk management, cultural resources, and other issues on the former Payne Ranch. This could be accomplished in cooperation with the University of California, California State Universities, or other academic entities.

8) Develop suitable public access points for non-motorized access to the former Payne Ranch along Highway 16 (see Proposed Action Map). These locations will become the principle access points to the Colusa County portion of the CCNA and will include parking areas, maps, and visitor use information, along with minimal facilities such as a restroom and picnic tables. Establish a user fee at these access points commensurate with the level of improvements.

Develop Cowboy Camp Trailhead as a seasonal public access, located at Mile Marker 0.9 on Hwy. 16. Provide minimum facilities including a fenced-in parking area, restroom, tables, maps, and other user information. A corral currently exists for equestrian use. Direct visitor use down Bear Creek to the existing trail which crosses the creek then heads up Craig Canyon. Due to the heavy seasonal use by tule elk of the nearby meadow habitat just west of Cowboy Camp Trailhead, this site will be closed as an access point from January 1-March 31 each year.

Develop an additional access site at Mile Marker 4.5 just south of the second bridge crossing over Bear Creek. This location will remain open year-round and will accommodate sufficient parking for foot and equestrian access in the area near Brophy Canyon. It will be necessary to construct approximately ½ to ¾ mile of new trail to link up with the existing trail system. Access to this new trail will also require crossing Bear Creek.

9) Provide an alternate equestrian access from the Judge Davis trailhead (Zone C) to BLM lands on the former Payne Ranch (Zone D) during the wet weather equestrian closure of CDFG lands (3rd Saturday in November through 3rd Saturday in

April).

Zone E (Proposed Action)

1) Manage this area primarily as elk habitat and maintain existing habitat improvements in the County Line Ridge area. These improvements include seedings, water developments, and prescribed burns.

2) Barricade known rare plant habitat along the Walker Ridge Road which is currently, or likely to be, impacted by vehicle use. Maintain existing barriers which prevent vehicular access into sensitive habitats along this road (same as for Zone B, as the first mile of the Walker Ridge Road is the dividing line between Zones B and E).

3) Construct and maintain barriers as needed to prevent unauthorized vehicle access from adjacent private lands.

4) Cooperate with private landowners to protect unique resource values such as the rare Townsend's big-eared bat, rare indigenous insect species, and unusual geological features with associated mining structures found in the Sulphur Creek watershed near Wilbur Springs Resort.

5) Continue to eradicate and control saltcedar on BLM land in the upper tributaries of Sulphur Creek. Seek the cooperation of landowners and the assistance of UC Davis to include this program on private property where these plants have invaded, infesting additional public lands downstream.

6) Allow carefully managed livestock grazing if feasible and effective in achieving vegetation management objectives which benefit elk. Utilize carefully-timed high intensity, short duration grazing as a tool to assist in the control of noxious vegetation including yellow starthistle, meadusahead, and others. Any grazing authorized will be subject to BLM's Standards and Guidelines for grazing utilizing Best Management Practices.

7) Continue current uses on the existing trail for mountain biking, hiking, equestrian use, and hunter access to the public lands. Provide minimum maintenance on the back road from Highway 20 to Wilbur Springs for emergency purposes.

Zone F (Proposed Action)

1) Coordinate with Yolo County Parks to develop a trail system to accommodate nonmotorized access for hiking, hunting, horseback riding, and mountain biking use. Use established existing routes wherever possible to minimize ground disturbance. Construct connector trails and reroute unacceptably steep and erodible portions of existing routes where necessary. The trail system will tie in with established public access points.

Extend the Blue Ridge Trail further to the south as opportunities become available. Eventually this trail will extend beyond the boundaries of this CRMP and into the Blue Ridge/Berryessa Natural Area.

2) Continue yearly maintenance of

Langs Peak (Buck Island) and Fiske Creek Roads for vehicle access. Yolo County will continue to maintain Road 40 annually from the low water crossing at Cache Creek to the Lake County line.

3) Develop a boating put in/take out location near the Yolo County Upper Recreation Site. The exact location will be dependent upon public safety, parking availability, and depth and speed of adjacent water in the creek. Close coordination with Yolo County Regional Parks will be necessary to determine the best location, establish consistency of fees, and coordinate use between private and commercial parties.

4) Manage Buck Island for rafting, camping, and other compatible primitive recreational uses. Provide adequate access, camping, and sanitation facilities. Restrict vehicles outside of designated Buck Island recreational access system by installing barriers as needed. Coordinate with Yolo County Regional Parks to ensure an effective permit system for commercial rafting outfitters who put in at Buck Island.

5) Maintain the Blue Ridge Ranch house and barn, and also reduce vandalism to the house by using as a base of operations. Possibilities include use by Native American tribal members working in the area, Boy Scouts, lodging for a caretaker, use by volunteers, employees working the area on temporary assignment, academic researchers, etc. If this can't be done, and vandalism continues to accelerate the maintenance costs of the house, it may become necessary to remove the house. The barn however will remain, as it is an historic site.

6) Work with permitted recreation concessionaires in the area to further public recreational opportunities, while maintaining the overall natural character of this part of the CCNA.

7) Provide adequate roadside parking near the Blue Ridge Ranch house and trailheads for public access. Install signs, barriers, and/or gates to restrict vehicular access off County Road 40 where vehicle use has caused soils damage by encroaching onto trails and into the open oak-meadow habitat. Enforce the existing vehicle closure by increased BLM and CDFG law enforcement patrols.

8) Develop and implement an interpretive site plan for the Blue Ridge ranch house area.

9) Designate camping areas along lower Fiske Creek as primitive overflow camping, if the need arises. These will be undeveloped sites without picnic tables, fire grills, water, etc. unless future needs demand.

10) Provide minimal facilities at Fiske Lake for camping use.

Alternative 1 - Continuation of Current Management Guidelines Found in Existing Management Plans (No Action)

Goal:

Continue to follow the management guidelines included within existing plans such as the Clear Lake Resource Area Management Framework Plan and Wilderness Study Area Final EIS for Cache Creek which address wildlife management, recreation management, WSA management, grazing, vehicle access, and other existing uses. Adhere to provisions for these uses included in activity plans for the Cache Creek ACEC, Tule Elk Wildlife Habitat Management Plan, and Northern California Chaparral Research Natural Area. Incorporate the management guidelines of future planning efforts, or other pertinent legislation such as Resource Management Plans or a congressional wilderness designation for Cache Creek.

Objectives common to all Zones:

1) Continue current levels of wildlife habitat management. This could include prescribed burns, water developments, and noxious plant control.

2) Maintain current levels of resource monitoring, protection, and interpretation.

3) Continue to prohibit motorized vehicle use on all public land within the zone except for those uses previously identified, and on roads currently open to public vehicular use. Maintain gates and barriers which prevent unauthorized vehicle access.

4) Continue acquisition of identified high priority private parcels from willing sellers.

5) Maintain current level of livestock grazing on BLM land.

6) Continue current levels of recreational use (hunting, hiking, horseback riding, limited 4WD vehicle use, etc.), but no new restrictions on boating, as long as this use occurs within existing management guidelines, i.e. Interim Management Planning for wilderness areas.

7) No new trails will be developed except for the completion of links in Zones A and C.

8) Authorize Special Recreation Use Permits for outfitters and recreation concessionaires on a case-by-case basis.

Zone A (Alternative 1)

1) Limit habitat improvements on those BLM lands within the WSA to prescribed burns and continue current level of burns and other habitat improvements such as water developments and seedings on CDFG land and the non-WSA BLM lands included within the Pluth acquisition of 1997.

2) Maintain current grazing levels within the Perkins Creek Allotment.

3) Maintain wilderness characteristics of the WSA by managing under Interim Management Planning provisions. This would include banning any target shooting and cleaning and rehabilitating any areas impacted by this activity.

4) Maintain existing public access to the Perkins Creek Ridge Trail. Maintain gate and barriers to restrict vehicular access into the closed area. No new access off Hwy. 53 is proposed.

5) Maintain the Redbud Trail. No new trails will be constructed within this zone.

6) Allow mountain biking on existing trails with the understanding that this use could be excluded on those BLM lands designated as wilderness at some point in the future.

7) Allow private rafting throughout the zone without restrictions on numbers as long as this use occurs within existing management guidelines, i.e. Interim Management Planning for WSA's.

8) Do not develop a Watchable Wildlife site along Hwy. 20

Zone B (Alternative 1)

1) Continue protection of rare plants by constructing vehicular barriers on an as-needed basis along the Walker Ridge Road. Maintain existing barriers.

2) Do not pursue land acquisition or easement to improve legal access to the Benmore Canyon area.

3) Do not expand the overflow area for Blue Oak Campground.

Zone C (Alternative 1)

1) Limit habitat improvements on those BLM lands within the WSA to prescribed burns and continue the current level of burns and other habitat improvements such as water developments and seedings on CDFG land. For the non-WSA BLM lands continue the current level of prescribed burns and noxious plant control, but do not maintain any wildlife ponds.

2) Provide a minimal level of patrols and visitor services to ensure adherence to WSA IMP guidelines.

3) Allow private boating throughout the zone without restrictions on numbers as long as this use occurs within existing management guidelines, i.e. Interim Management Planning for wilderness areas.

4) Maintain Redbud Trail to Wilson Valley. Maintain Judge Davis Trail to Wilson Valley and Cache Creek Ridge.
No new trails will be constructed within the Zone.

5) Maintain existing access rights by private property inholders. However, before initiating any road maintenance across federal or state lands, landowners must first obtain the appropriate authorization from BLM or CDFG

Zone D (Alternative 1)

1) Continue current level of burns and other habitat improvements such as noxious plant control on BLM lands. Do not maintain any of the wildlife ponds. Do not implement any habitat improvements on lands owned by Rocky Mountain Elk Foundation (RMEF).

2) Allow no new trail development including loops on the Payne Ranch acquisition. However trails will be signed for recreational use, but only along existing routes.

Zone E (Alternative 1)

1) Continue protection of rare plants by constructing vehicular barriers on an as-needed basis along the Walker Ridge Road. Maintain existing barriers.

2) Existing wildlife habitat improvements will be maintained, but no new projects will be initiated.

3) Continue current level of noxious plant eradication.

4) Provide minimum maintenance on access route from Hwy. 20 for use as an emergency fire road.

Zone F (Alternative 1)

1) Maintain Blue Ridge, Fiske Creek, and Frog Pond Trails.

2) Maintain the Langs Peak (Buck Island) and Fiske Creek Roads for vehicular use.

3) Coordinate rafting permits with Yolo County Parks for those permittees launching on BLM land at Buck Island.

4) A minimal facility for sanitation may be constructed at Buck Island due to anticipated increase in public use, but otherwise no new recreational developments will be constructed within the zone.

Alternative 2 - Expansion of Primitive Recreation Opportunities, Eliminating All Conflicting Uses, Demands, and Allocations

Goal:

Emphasize expanding opportunities for primitive recreation, eliminating all conflicting uses, demands, and allocations.

Objectives Common to all Zones:

1) No commercial consumptive uses will be allowed on BLM lands within the CCNA, including livestock grazing, firewood cutting, and sale, lease, or location of mineral materials.

2) Limit habitat improvements on BLM lands to prescribed burns and noxious plant control.

3) Continue land acquisition efforts on priority parcels. Priority will be given to those parcels which facilitate public access or eliminate conflicting uses on adjacent private lands.

4) All lands managed by BLM, CDFG, and Yolo County will be closed to public motorized vehicle use. Exceptions will be allowed for those uses previously described. Additionally the Langs Peak Road to Buck Island, the Fiske Creek Road to the parking area near the top of Blue Ridge, and the Walker Ridge and Indian Valley Dam Roads to Indian Valley Dam will remain open and not affected by this closure. However any vehicular travel off these roads is prohibited. All gates and barriers which prevent unauthorized vehicular access will be monitored and maintained as necessary to prevent access.

Existing and future parking areas and trailheads will provide access points for nonmotorized public use leading from the periphery to the interior of the CCNA.

5) Provide and maintain adequate trail system to minimize contact between visitors through better dispersal.

6) Manage boating to minimize contact between parties through better dispersal.

7) Prohibit non-hunting shooting (target shooting, plinking) on BLM-managed land within the CCNA (plinking is already prohibited by state regulation on CDFG-managed lands within the Cache Creek Wildlife Area, and in Yolo County's Cache Creek Canyon Regional Park).

8) Minimize development while providing essential sanitation and safety information.

9) Complete and implement an interpretive master plan for the CCNA. Provide adequate visitor information, education, maps, etc.

Zone A (Alternative 2)

1) Management focus will emphasize

recreational access for hiking, equestrian, and boating use. Boating access at the Redbud Trailhead will be allowed year-round. However, boating will be kept to a low density to minimize contact between users and to limit unacceptable impacts to wildlife. If serious impacts to wildlife are documented, a permit system will be initiated to limit the number of boaters visitors accessing critical habitat areas.

2) Maintain the Redbud Trail. Complete a primitive trail system on the former Pluth property by looping trails together. Provide an interconnecting trail system from the Redbud Trailhead to facilitate access to the Pluth acquisition.

3) Coordinate with Yolo County Flood Control and Water Conservation District to consider public access to allow rafting on Cache Creek below Cache Creek Dam by permit.

4) Develop low water crossing or foot/equestrian bridge at a suitable site near Baton Flat to facilitate access during periods of high water flows. Other than this crossing and trailheads, no facilities will be developed within the zone.

5) Eliminate the Perkins Creek Grazing Allotment.

6) Limit habitat improvements on BLM lands within the WSA to prescribed burning and on non-WSA BLM lands limit improvements to prescribed burning and noxious plant control. Control methods for noxious plants on non-WSA BLM land will be limited to fire, mowing, and herbicide use. Use of limited grazing or mechanical means to revegetate treated areas will not be allowed. Do not maintain or improve any of the existing projects including seedings and water developments on BLM land. Habitat improvements on CDFG lands will continue in the same manner and degree as current practice.

Zone B (Alternative 2)

1) Pursue acquisition of key parcels to obtain a non-vehicular public access to the BLM lands in Benmore Canyon. Provide minimum trail to this block of BLM land. In lieu of this, pursue an easement which would best facilitate this access.

2) Expand the Blue Oaks overflow camping area.

3) Barricade rare plant habitat along Walker Ridge Road which is experiencing or likely to experience damage from vehicles. Maintain these barriers as needed.

Zone C (Alternative 2)

1) Develop a trail system to accommodate hiking and equestrian use (and mountain bikes on those portions of the zone outside the Wilderness Study Area.) Trail projects will include the following:

a) Extend the Twin Sisters equestrian/hiking trail with the goal of completing the trail to Cache Creek.

b) Build a loop trail from Redbud Trail to the confluence of the

North Fork and Cache Creek.

c) Develop additional trails as needed and as funding and priorities allow. All trails within the WSA must be built consistent with WSA Interim Management Guidelines with the exact routing to be evaluated to avoid impacts to sensitive wildlife and cultural values.

2) Maintain the Judge Davis Trail to Wilson Valley and Cache Creek Ridge.

3) Develop a suitable equestrian/foot bridge or low water crossing near Baton Flat.

4) Establish a "limit of acceptable change" set of standards, with an accompanying monitoring program, to ensure that increasing numbers of visitors do not result in unacceptable degradation of recreational experiences.

5) Limit habitat improvements on BLM lands within the WSA to prescribed burning and on non-WSA BLM lands limit improvements to prescribed burning and noxious plant control. Control methods for noxious plants on non-WSA BLM land will be limited to fire, mowing, and herbicide use. Use of limited grazing or mechanical means to revegetate treated areas will not be allowed. Do not maintain or improve any of the existing projects including seedings and water developments on BLM land. Habitat improvements on CDFG lands will continue in the same manner and degree as current practice.

Zone D (Alternative 2)

1) Prohibit all livestock grazing on the former Payne Ranch.

2) Develop and maintain an adequate hiking and equestrian trail system to disperse visitors and enhance primitive recreation opportunities. Trail projects to be included are various trails found within the Payne Ranch acquisition.

3) Develop suitable public access points for non-motorized access to the former Payne Ranch along Highway 16 (see Proposed Action Map). These locations will become the principle access points to the Colusa County portion of the CCNA and will include parking areas, maps, and visitor use information, along with minimal facilities such as a restroom and picnic tables.

Develop Cowboy Camp Trailhead as a year-round public access, located at Mile Marker 0.9 on Hwy. 16. Provide minimum facilities including a fenced-in parking area, restroom, tables, maps, and other user information. A corral currently exists for equestrian use. Direct visitor use down Bear Creek to the existing trail which crosses the creek then heads up Craig Canyon.

Develop a second access site at Mile Marker 4.5 just south of the second bridge crossing over Bear Creek. This location will remain open year-round and will accommodate sufficient parking for foot and equestrian access in the area near Brophy Canyon. It will be necessary to construct approximately ½ to ¾ mile of new trail to link up with the existing trail system. Access to this

new trail will also require crossing Bear Creek.

Establish an additional year-round nonmotorized public access point near the confluence of Bear Creek and Cache Creek. This access will provide both an ending point and beginning for the Cache Creek Ridge Trail.

4) Limit habitat improvements on BLM and RMEF lands to prescribed burning and noxious plant control. Control methods for noxious plants will be limited to fire, mowing, and herbicide use. Use of limited grazing or mechanical means to revegetate treated areas will not be allowed. Do not maintain or improve any of the wildlife ponds.

Zone E (Alternative 2)

1) Ensure that the back road from Highway 20 which crosses over County Line Ridge to Wilbur Springs remains open for emergency use only. Continue minimum maintenance as a hiking trail.

2) Construct and maintain barriers as needed to prevent unauthorized vehicle access from adjacent private lands.

3) Encourage cooperative efforts to interpret the historic mining district.

4) Cooperate with private landowners in protecting unique resources including rare bats and federally-listed indigenous insect species found in Sulphur Creek near Wilbur Springs Resort.

5) Eradicate saltcedar and giant reed from infested areas of BLM-managed riparian habitat. Work with UC Davis to encourage participation of adjacent landowners in this effort.

6) Barricade rare plant habitat along Walker Ridge Road which is experiencing or likely to experience damage from vehicles. Maintain these barriers as needed.

7) Do not construct any additional wildlife habitat improvements or maintain existing projects.

Zone F (Alternative 2)

1) Maintain the Blue Ridge, Fiske Creek and Frog Pond Trails. Extend the Blue Ridge Trail further south inside the boundary of the Blue Ridge/Berryessa Natural Area.

2) Maintain Langs Peak (Buck Island) and Fiske Creek Roads for vehicle use.

3) Manage Buck Island for rafting, camping, and other primitive recreational pursuits. Provide adequate access and minimal facilities including restrooms, tables, and firepits. Coordinate with Yolo County Parks to ensure effective permit system for commercial rafting.

4) Maintain the Blue Ridge Ranch house and barn. Develop a use strategy for the house, i.e., rafting concessionnaire, lodging for a caretaker, volunteers, employees working the area on temporary assignment, researchers.

5) Work with commercial permittees in the area to further primitive recreational opportunities, while maintaining the overall natural character of the land.

6) Provide adequate roadside parking near the Blue Ridge Ranch house and trailheads for public access. Install signs, barriers, and/or gates to restrict vehicular access off County Road 40 where vehicle use has caused soils damage in the oak-meadow habitat.

7) Designate camping areas along lower Fiske Creek as primitive overflow camping, if the need arises. These will be undeveloped sites without picnic tables, fire grills, water, etc., unless future needs demand.

Alternative 3 - Providing the Widest Range of Recreational Opportunities While Allowing Other Uses Which Do Not Detract From the Recreational Experience

---

Goal:

To provide the widest range of recreational opportunities while allowing other uses which do not detract from the recreational experience.

Objectives common to all Zones:

1) Provide multiple access points to public land to help spread visitor use throughout the entire CCNA.

2) Establish extensive trail system for hiking, horseback riding, and mountain biking.

3) Continue land acquisition of priority parcels. Priority is placed on those parcels which are critical for public access or eliminate conflicting uses on adjacent private lands.

4) Provide adequate facilities to accommodate the widest range of recreational use and number of visitors.

5) No consumptive uses such as grazing, firewood cutting, or mineral material sales would be permitted.

6) Complete and implement

interpretive master plan for the CCNA. Provide adequate visitor information and maps.

7) Continue current level of habitat development projects, including prescribed burns, water developments, and noxious weed control, as long as there are no serious conflicts with recreational opportunities.

Zone A (Alternative 3)

1) Allow unlimited private rafting opportunities at the North Fork put-in without restriction. Authorize commercial rafting on a case-by-case basis. Coordinate with Yolo County Flood Control and Water Conservation District to establish a policy to authorize access over Cache Creek Dam for rafting on Cache Creek below the dam.

2) Maintain the Redbud Trail. Complete a primitive trail system on the former Pluth property by looping trails together. Provide an interconnecting trail system from the Redbud Trailhead to facilitate access to the Pluth acquisition.

3) Develop camping facilities along the CDFG-managed portion of the North Fork.

4) Develop primitive walk-in campsite at Baton Flat.

5) Construct a bridge near Baton Flat to facilitate access for horse, mountain bike, and foot traffic.

6) Establish shooting range near the North Fork on the former Pluth Ranch acquired by BLM in 1997.

7) Develop a "Watchable Wildlife" viewing turnout along the north side of Hwy. 20 at the former Pluth Ranch. Provide interpretation and viewing opportunities focusing on the tule elk herd and wintering bald eagles. Work with Cal-Trans to ensure that a turn-out can be developed safely and cost-effectively.

8) Eliminate the Perkins Creek Grazing Allotment.

9) Limit habitat improvements on BLM lands within the WSA to prescribed burning and on non-WSA BLM lands limit improvements to prescribed burning and noxious plant control, as well as necessary maintenance for other existing projects including water developments and seedings. Control methods for noxious plants on non-WSA BLM land will be limited to the use of prescribed fire, mowing, and herbicides. Use of limited grazing or mechanical means to revegetate treated areas will not be allowed. Habitat improvements on CDFG lands will continue in the same manner and degree as current practice.

Zone B (Alternative 3)

1) Pursue acquisition of key parcels to obtain a non-vehicular public access to the BLM lands near Benmore Canyon.

2) Continue existing vehicle access on trails leading from the Walker Ridge Road and Indian Valley Dam

Road, except where direct threats to rare plants or cultural resources exist. Where appropriate develop and maintain an OHV trail system using designated roads and trails.

3) Establish a shooting range at a suitable location within the zone.

4) Develop Blue Oak overflow campground.

Zone C (Alternative 3)

1) Allow unlimited non-commercial rafting on Cache Creek. Authorize additional commercial outfitters on a case-by-case basis, if logistically feasible.

2) Develop a trail system to accommodate hiking and equestrian use (and mountain bikes on those portions of the zone outside the Wilderness Study Area.) Trail projects will include the following:

a) Extend the Twin Sisters equestrian/hiking trail with the goal of completing the trail to Cache Creek.

b) Build a loop trail from Redbud Trail to the confluence of the North Fork and Cache Creek.

c) Develop additional trails, spurs, etc. as needed and as funding and priorities allow. All trails within the WSA must be built consistent with WSA Interim Management Guidelines with the exact routing to be evaluated to avoid impacts to sensitive wildlife and cultural values.

3) Maintain the Judge Davis Trail to Wilson Valley and Cache Creek Ridge.

4) Provide an alternate equestrian access from the Judge Davis trailhead (in Zone C) to BLM lands on the former Payne Ranch (in Zone D) during the wet weather equestrian closure of CDFG lands (3rd Saturday in November through 3rd Saturday in April).

5) Eliminate all seasonal closures.

6) Pursue legal public access from Morgan Valley via Rocky Creek Road to the south boundary of the Wilderness Study Area near Brushy Sky High.

7) Establish a "limit of acceptable change" set of standards, with an accompanying monitoring program, to ensure that increasing numbers of visitors do not result in unacceptable degradation of recreational experiences.

8) Limit habitat improvements on BLM lands within the WSA to prescribed burning and on non-WSA BLM lands limit improvements to prescribed burning and noxious plant control, as well as necessary maintenance for other existing projects including water developments and seedings. Control methods for noxious plants on non-WSA BLM land will be limited to use of prescribed fire, mowing, and herbicides. Use of limited grazing or mechanical means to revegetate treated areas will not be allowed. Habitat improvements on CDFG lands will continue in the same manner and degree as current practice.

Zone D (Alternative 3)

1) Develop and maintain an extensive hiking, equestrian, and mountain biking trail system to provide for increased numbers of visitors and to disperse visitors throughout the zone. Trail projects will include looping of various trails found within the Payne Ranch acquisition, as well as additional trails deemed necessary to improve recreational opportunities.

2) Develop Cowboy Camp Trailhead as a year-round campground and public access, located at Mile Marker 0.9 on Hwy. 16. Provide facilities including a fenced-in parking area, restroom, water system, tables, fire pits with barbecue grills, and maps and other user information. A corral currently exists for equestrian use. Nonmotorized visitor use can disperse from this point without seasonal or spatial restriction.

Develop a second year-round access site at Mile Marker 4.5 just south of the second bridge crossing over Bear Creek. This location will accommodate sufficient parking for foot and equestrian access in the area near Brophy Canyon. It will be necessary to construct approximately ½ to ¾ mile of new trail to link up with the existing trail system. Access to this new trail will also require crossing Bear Creek.

Develop a third year-round nonmotorized public access site near the confluence of Bear Creek and Cache Creek on BLM or Yolo County Park land. This access will provide both an ending point and beginning for the Cache Creek Ridge Trail.

Develop a fourth access site with campground, accessible by vehicle, at the former hunting camp on the Payne Ranch acquisition known as Roadkill Café, located 1½ miles on the access road from the Lynch Canyon turnoff on Hwy. 20. Facilities here would include camping sites with restroom, water system, picnic tables, and fire pits with barbecue grills. Coordinate these developments with the extensive road and trail system within this Zone. Work closely with Cal-Trans to ensure that all access points provide safe on and off access from State Highways 16 and 20.

3) Maintain and improve existing wildlife ponds which currently support or could support game fish. Keep ponds stocked with fish if necessary, and stock additional suitable ponds to increase fishing opportunities in this zone.

4) Prohibit all livestock grazing on the former Payne Ranch.

5) Limit habitat improvements on BLM and RMEF lands to prescribed burning and noxious plant control. Control methods for noxious plants will be limited to fire, mowing, and herbicide use. Use of limited grazing or mechanical means to revegetate treated areas will not be allowed.

Zone E (Alternative 3)

1) Establish a new campground with visitor use facilities in the County Line Ridge area accessible by vehicles from Hwy. 20. Facilities would include camping sites with restroom, picnic tables, and fire pits with barbecue grills.

2) Develop nonmotorized trail beyond this new campground, possibly linking with the Walker Ridge Road if easements can be acquired.

Zone F (Alternative 3)

1) Manage Buck Island for a high level of rafting, camping, and other primitive recreational pursuits. Provide a limited access for 2WD vehicles with barriers to prevent unauthorized access beyond the recreation site. Other facilities developed will include restrooms, picnic tables, trash receptacles, and fire pits with barbecue grills. Coordinate with Yolo County Parks to ensure effective permit system for commercial rafting.

2) Coordinate with Yolo County Parks to develop more extensive recreational opportunities in and around Cache Creek Canyon Regional Park, i.e. additional hiking/biking/horse trails.

3) Allow 4WD's on Fiske Creek Trail.

4) Develop a hunting and hiking access trail to Cortina Ridge from Hwy. 16.

5) Work with landowners to acquire easements for public non-motorized access to Blue Ridge from Capay Valley.

6) Provide a full-time caretaker for the Blue Ridge Ranch house who could complete trail and facility maintenance, supply information to the public, and provide an important presence in this area to discourage vandalism.

7) Establish a target shooting range at a suitable site accessible from the Fiske Creek Road.

Alternative 4 - Provides the Most Stringent Protection of Resource Values, While Minimizing Any Increased Recreational Uses

Goal:

Place primary emphasis on protection of all natural and cultural resource values. These include fish and wildlife and their habitats, botanical values, wilderness, scenic, geological values, and historic and prehistoric cultural sites. No special measures will be taken to expand the current level of recreational uses, including access and trail development.

Objectives Common to All Zones:

1) Manage all recreational activities for maximum protection of the resource values listed above. Where potential conflicts may occur, scale back on proposed recreational use.

2) Enforce any necessary seasonal closures to provide maximum protection for biological values at sensitive times or sensitive locations.

3) Implement intensive prescribed burning of chaparral on BLM lands. Burns will be completed at the appropriate time each year to maximize benefits to wildlife habitat. Utilize alternative methods of brush removal (crushing, chipping) if prescriptions for burning are not able to be met.

4) Manage grazing to maximize resource benefits to rangelands (i.e., controlling noxious vegetation and preventing both overgrazing and grazing in sensitive habitats). Any grazing authorized will be subject to BLM's Standards and Guidelines for grazing.

5) Direct recreational activities away from critical biological and cultural resources.

6) Vigorously implement a noxious plant control program for riparian and upland habitats, using all means available.

7) Pursue acquisition of identified private land, prioritizing those parcels with high resource values.

8) Complete and implement an interpretive master plan for the CCNA. Provide adequate visitor information and maps.

9) Prohibit all target shooting.

10) Close entire CCNA to vehicular use except for administrative uses, valid existing rights, and designated existing roads as previously identified.

11) Ensure that private inholders will retain reasonable access rights to their land. However, before initiating any road maintenance across federal or state lands, landowners must first obtain authorization from BLM or CDFG.

Zone A (Alternative 4)

1) Implement intensive wildlife habitat management with an emphasis on elk habitat improvements on CDFG and non-WSA BLM land. Habitat management may include seedings, noxious weed control, brush conversions, water developments, riparian improvements, and prescribed burns. In addition, monitor local elk population and use of existing habitat improvements.

2) Maintain the Redbud Trail for hiking and horseback riding. No new trails or link-ups with other trails will be built within the Zone.

3) Permanently close the existing Perkins Creek Ridge access, located adjacent to the Clearlake landfill. Establish a new access point for nonmotorized use along Hwy. 53.

4) Do not construct any creek crossings in the Baton Flat area.

5) Allow no overnight camping within the Zone due to high use of wildlife habitat improvements.

6) Close to all boating the stretch of Cache Creek between Cache Creek Dam and the confluence with the North Fork.

7) Establish permit system to limit the number of rafters putting in at the North Fork beyond that imposed by any other seasonal closure.

Zone B (Alternative 4)

1) Limit vehicle use on Walker Ridge Road and Indian Valley Dam Road to street-legal vehicles only. No off-road travel or use by non-street legal vehicles will be allowed.

2) No provisions will be made to acquire a legal access to the public lands in the Benmore Canyon area.

Zone C (Alternative 4)

1) Conduct intensive wildlife management on CDFG and non-WSA BLM lands. Habitat management may include seedings, noxious weed control, brush conversions, water developments, riparian improvements, and prescribed burns. Any projects proposed within the WSA will be consistent with interim management policy for these areas.

2) Promote botanical and other academic research within the Northern California Chaparral Research Natural Area.

3) Maintain existing trails, but do not construct new trails or link-ups between trails. In the event that any existing trails direct users to sensitive biological or cultural resources, these trails will be routed away from these areas.

Zone D (Alternative 4)

1) Conduct intensive wildlife management primarily for tule elk on BLM and Rocky Mountain Elk Foundation (RMEF) lands. Projects can include seedings, water developments, prescribed burns, noxious plant control, nesting boxes for various bird species, and riparian habitat enhancement. Additionally

monitor elk population and use of habitat throughout the zone on a seasonal basis.

2) Improve habitat surrounding functioning wildlife ponds by planting riparian species to help filter out inflowing sediments and increase biodiversity. Eradicate other nonnative plants at these sites including cocklebur and teasel. Maintain and improve other ponds in need of structural stability

3) Allow livestock grazing which meets vegetation management objectives (i.e., noxious plant control, protection of sensitive habitats). Any grazing authorized will be subject to BLM's Standards and Guidelines for grazing.

4) Develop Cowboy Camp Trailhead along Hwy. 16 to the recent Payne Ranch acquisition. Develop the site located at Mile Marker 4.5 just south of the second bridge crossing over Bear Creek. This location will remain open from April 1 through November 30 and will accommodate sufficient parking for foot and equestrian access to the area near Brophy Canyon. It will be necessary to construct approximately ½ to ¾ mile of new trail to link up with the existing trail system. Access to this new trail will also require crossing Bear Creek.

5) Other than the new link-up described in the previous paragraph, no new trails or trail link-ups will be developed in this zone.

Zone E (Alternative 4)

1) Allow only non-motorized public access within this zone, except for valid existing rights. The road to Wilbur Springs will be maintained for emergency fire access.

2) Maintain existing improvements and implement additional wildlife habitat improvement projects (i.e., burns, seedings, noxious plant control, wildlife water developments, riparian habitat enhancement).

3) Construct and maintain barriers as needed to prevent unauthorized vehicle access from adjacent private lands.

4) Construct barriers for rare plant habitat if it is experiencing, or is likely to experience, any adverse impacts from vehicles along Walker Ridge Road.

Zone F

1) Construct permanent wildlife water developments (i.e., buried collection tanks for guzzlers and wildlife reservoirs with earthen dams) in suitable locations throughout the Zone. Coordinate with State Division of Water Rights as necessary.

2) Continue to implement other wildlife habitat projects such as prescribed burns and noxious plant eradication.

3) Maintain Blue Ridge Ranch house for use by academic researchers.

4) Continue to manage recreational opportunities consistent with wildlife management objectives. Manage

Buck Island for a low level of rafting, camping, and other primitive recreational pursuits. Maintain access for 4WD vehicles, and provide limited facilities including a restroom and picnic tables.

Chapter 4: Environmental Impacts

This chapter discusses the anticipated environmental impacts of the planned actions in this CRMP to each resource value, depending upon which alternative is implemented. Mitigations for these impacts follow each impact.

The impacts from the Proposed Action are insignificant overall because the Proposed Action was specifically tailored to have minimal resource impact. These impacts are followed by suitable mitigation measures. In addition, benefits to each resource value from the Proposed Action and each alternative are listed.

Although the impacts of the Proposed Action are expected to be minimal, each of the four alternatives has varying levels and types of impacts. These impacts would primarily affect biological, cultural, and scenic values, resulting from construction of visitor use facilities such as trails and access points, and level of recreational use.

The Proposed Action for this Plan prioritizes protection of resource values while secondarily providing for compatible recreational uses.

Impacts from the Proposed Action may affect the following resources. Mitigations for these impacts are also discussed.

A. Vegetation

Impact: There may be localized losses of vegetation due to trail and access developments.

Mitigation: Trails will follow any existing routes as much as possible. Revegetation with native plants will be considered if necessary.

Impact: Increased visitor use may result in more off-trail travel by users.

Mitigation: Provide an adequate trail system with signing, and make environmental education materials available which stress the importance of low impact use. If impacts to vegetation from off-trail use become significant, these areas may be closed or limited.

Impact: Increased visitor use may result in an increase of man-caused wildfires.

Mitigation: Provide environmental education materials, uniformed onsite visitor use assistance and law enforcement or park rangers at trailheads and major trails during peak times.

Benefits to the Vegetation Resource under the Proposed Action include:

a. Removal of noxious plants will benefit native vegetation by reducing competition for habitat.

b. Native oaks will be protected on existing public lands and on new lands as they are acquired.

c. Managed grazing will benefit

native plants, as BLM Standards and Guidelines for grazing will apply.

B. Wildlife/T&E/Fisheries

Impact: A projected increase in public use may result in cumulative impacts to wildlife, especially during the breeding/nesting seasons.

Mitigation: If serious impacts to wildlife including T&E species occur from increased visitor use, seasonal closures will be reinstituted. A permit process may also be implemented for boating.

Impact: Increased public use may result in increased poaching of wildlife.

Mitigation: Provide an increased on-the-ground law enforcement presence and visitor use rangers at trailheads and along main trails at high use times.

Impact: Fences necessary to manage livestock grazing according to BLM's Standards and Guidelines may have negative impacts on elk.

Mitigation: For any authorized grazing, recommend the use of low-stress herding techniques which require significantly less fencing.

Benefits to the Wildlife Resource under the Proposed Action include:

a. Wildlife populations will likely increase in number due to proposed habitat improvements, including seedings, prescribed burns, weed control, water developments, and riparian area enhancement.
b. Revegetation with appropriate native species in damaged

riparian sites will improve habitat quality.

c. Improvement of habitat by saltcedar removal benefits local fish species.

C. Cultural Resources

Impact: Increased visitor use may result in increased theft or damage to cultural artifacts.

Mitigation: Any trail developments will be routed away from known archaeologically-sensitive areas. Agreements will be pursued with academia to assist with periodic monitoring of these sites. Interpretation and education will emphasize the value in preserving these special areas by low impact use.

Impact: Habitat development projects could potentially impact archaeologically-sensitive areas.

Mitigation: For each proposed habitat development project, an Environmental Assessment will be prepared with review by an archaeologist to minimize any impacts to cultural resources.

Benefits to the Cultural Resource under the Proposed Action include:

a. Continued vehicle closures will help prevent vehicle damage at cultural sites. This is especially critical for certain portions of the CCNA where additional cultural resources are likely to be discovered once these areas are inventoried.
b. Cooperation with academic institutions in the study and preservation of archaeological sites will further our knowledge of the past.
c. Interpretation and education will help the public to cooperate in protecting archaeological resources.

D. Recreation

Impact: If it becomes necessary to institute seasonal wildlife closures, this could temporarily limit recreational opportunities.

Mitigation: Recreationists will be routed to alternate trails and other areas not affected by closures. Further monitoring will confirm the necessity of continuing a closure.

Impact: An increase in visitor use will likely result in increased visitor interactions with others.

Mitigation: Develop an expanded trail system with dispersed access points.

Impact: There will be reduced shooting opportunities for target shooters, as this activity will not be allowed within the CCNA.

Mitigation: Recommend alternate sites on nearby BLM lands which are suitable for target shooting.

Benefits to the Recreation Resource under the Proposed Action include:

a. Recreational opportunities will be enhanced by providing maps, signs, and other public information.

b. Expanding the existing trail system and establishing additional trailheads will increase hiking, horseback riding, and mountain biking opportunities, and will enhance primitive recreational experience through better dispersal of visitors.

c. Improving boating access and facilities at Buck Island and expanding boating put in/take out facilities near the confluence of Cache Creek and Bear Creek would enhance boating opportunities, reduce safety hazards from boaters parking along Hwy. 16, and improve sanitation conditions.

d. Allowing camping west of Baton Flat will improve camping opportunities during times when the Redbud Trail beyond Baton Flat is not accessible due to seasonal closures or high water flows in Cache Creek.

e. Restricting target shooting will reduce conflicts between visitors, improve visitor safety, and reduce trash and vandalism.

f. Providing a crossing near Baton Flat for hikers and equestrians will allow access beyond Baton Flat during periods of high water flows.

g. Constructing universally accessible short loop interpretive trails at the Redbud Trailhead and along Bear Creek off Hwy. 16 will allow recreational and educational use for disabled users who are unable to access a majority of the area.

h. Acquisition of priority parcels will increase recreational opportunities by opening more lands to the public and creating additional access points.

i. Vehicle closures will improve recreational experiences by preventing the visual, noise, and soils impacts of off-highway

vehicles.

i. Wildlife habitat development projects and livestock grazing managed under BLM's Standards and Guidelines for grazing will improve fishing, hunting, and wildlife viewing opportunities.

E. Wilderness/Wild & Scenic Rivers

Impact: Increased visitor use could affect the wilderness experience for visitors.

Mitigation: Develop an expanded trail system with dispersed access points.

Impact: An increase in the incidence of man-caused wildfires from increased visitor use could result in greater impacts from wildfire suppression activities.

Mitigation: Develop a Fire Management Plan for the entire CCNA to minimize the impacts from fire suppression activities.

Benefits to the Wilderness Resource under the Proposed Action include:

a. An expanded trail network will help to disperse visitors over a broader area of the WSA and the Cache Creek corridor.

b. Wilderness quality will be maintained by vehicle closures and adherence to BLM's Wilderness Interim Management Policy (IMP) guidelines.

c. Managed boating, if necessary, will allow continued high quality wilderness experience along Cache Creek during those periods when boating is available.

F. Soil/Water/Air

Impact: Increased visitor use could increase soil compaction and erosion at access points and other high use areas.

Mitigation: Reroute any problem areas on existing trails and carefully plan new trail alignments.

Impact: Increased visitor use could impact soils and aquatic habitats at any stream crossing.

Mitigation: Install culverts and foot bridges, employ practices which can successfully harden the trail base in these areas, discourage any camping within 200 feet of any perennial water.

Impact: Construction of new wildlife ponds may impact water supplies for downstream users.

Mitigation: This impact is expected to be minimal. Any proposed water developments will be processed through the State Division of Water Rights.

Impact: There is a potential of water contamination from livestock grazing in riparian areas.

Mitigation: Implement BLM Standards and Guidelines for grazing which will restrict the timing and intensity of grazing.

Impact: There is a potential of an increase in man-caused wildfires with increased visitor use.

Mitigation: Implement fire restrictions during declared fire season. Through environmental education inform visitors of the dangers of wildfires. Implement foot patrols of uniformed visitor services rangers during high use periods.

Benefits to the Soil/Water/Air Resource under the Proposed Action include:

a. Proposed removal of saltcedar along Bear Creek will likely increase water volume during the hot summers due to reduced evapotranspiration.

b. Authorized grazing on acquired lands will occur only under BLM Standards and Guidelines for grazing. This will greatly enhance this habitat by improving streambank stabilization and allowing overhanging vegetation to grow. This would result in a decrease in summer water temperatures, enhancing water quality and the fishery.

c. Repair of identified breached water developments on the Payne Ranch acquisition will lessen impacts from erosion at these sites.

G. Socio-economics

Impact: Changes in grazing management on private lands with existing grazing leases which are acquired by BLM could impact local livestock operators by decreases in grazing intensity, duration, and location.

Mitigation: To the extent allowed by BLM standards and guidelines and if feasible, manage grazing using the best available science to decrease the proliferation of noxious plants. This is a benefit to livestock operators because it will result in improved rangelands with increased forage quality (more AUM's).

Impact: Withdrawing the entire CCNA to mineral entry would eliminate any income to the mining industry. No surface disturbing activities associated with saleable, locatable, or leasable minerals would be allowed.

Mitigation: None

Impact: Prohibiting any consumptive commercial uses within the CCNA could affect small businesses such as firewood cutting and decorative rock businesses.

Mitigation: Recommend other suitable areas for these activities on other BLM lands outside of the CCNA.

Impact: Restricting vehicle use by permitted recreation concessionaires in areas closed to vehicular use (unless authorized through prior existing rights) could limit the scope of these recreational activities.

Mitigation: Recommend use of pack animals.

Benefits to the Socio-economic Resource under the Proposed Action include:

a. Expansion of boating facilities at Buck Island and near the confluence of Cache Creek and Bear Creek will enhance commercial rafting opportunities by providing better facilities and improving access. This would have a positive economic impact to the local economy and concessionaires.
b. Improving trailhead and trail access, particularly within the former Payne Ranch area, will provide additional opportunities for commercial recreation businesses (i.e. horseback riding, hunting, wilderness outfitters, etc.). This would also have a positive economic impact to the local economy and concessionaires.

c. Once the overall management actions are implemented within the CCNA, it is anticipated that there could be a significant increase in visitor use. This will translate into local increases in sales of food, lodging, gas, etc.

d. Cooperative agreements with universities for academic research will result in an economic benefit in the form of paid research.

H. Scenic/Visual

Impact: The scenic quality of the CCNA could be impacted by the construction of additional visitor use facilities and the increased litter, incidences of wildfire, and fire suppression activities associated with increased use.

Mitigation: Design facilities to blend in with the surrounding environment. Stress low impact use in environmental information at access points. Post fire safety information during fire season.

Impact: Construction of public access facilities along Highway 16 could affect visual quality along this scenic corridor.

Mitigation: Close coordination with Cal-Trans and implementing sound design standards with visual quality in mind should minimize scenic impacts from these developments

Benefits to the Scenic/Visual Resource under the Proposed Action include:

a. Improved livestock grazing management (i.e. removal of grazing along riparian zones and around portions of reservoirs, reductions in livestock numbers, and shortening of use seasons) will significantly enhance the scenic quality of the management area, particularly along the riparian corridors.

b. Removal of certain existing fence lines (many of which are presently in poor shape) will improve scenic quality of the area.

c. Cleanup efforts (abandoned vehicles, equipment, and trash) will enhance visual quality while occasional littering from increased use in the area may temporarily

degrade visual quality when those instances occur.

Residual and Cumulative Impacts of Proposed Action

Despite adherence to trail and facility design standards, there will be slight residual soil loss due to increased trail development and use. Cumulatively, these impacts will not be significant, given the size of the area relative to the few miles and dispersion of trails proposed.

Residual impacts from wildlife habitat development projects will vary from project to project, but will primarily be soils-related. Water developments will result in some soil and vegetative displacement at project sites. Prescribed burns will result in a temporary increase in erosion in burned areas. Cumulatively these impacts will not be significant because they will ultimately result in improved habitat and will be widely scattered throughout the CCNA.

Potential residual and cumulative impacts to the cultural resources in the CCNA come from human and animal activities and ongoing erosion problems. Unfortunately some users illegally remove cultural artifacts found on the surface of sites. Over time the sites can be degraded through casual collecting, thus removing important valuable information about the past, irretrievably damaging these sites. Construction of rock fire rings by users camping in culturally-sensitive areas can also damage these sites.

Alternative 1 - Continuation of Current Management Guidelines Found in Existing Management Plans (No Action)

A. Vegetation

The impacts under this alternative would be the same as those of the Proposed Action except:

Impact: The level of noxious vegetation control will be much less aggressive. As a result these species will likely continue to invade riparian and upland habitats, further displacing the more desirable species. This will eventually result in decreasing quality of riparian and upland habitats in certain locations, further degrading wildlife habitats.

Mitigation: Limited control will continue in the most heavily infested areas.

Impact: Maintaining the current level of grazing will result in continuing impacts to sensitive habitats, including riparian areas.

Mitigation: This will require additional fencing to protect environmentally-sensitive areas.

Impact: Mineral extraction would impact vegetation in disturbed areas.

Mitigation: Enforce strict permit stipulations to keep any vegetative disturbances to a minimum.

Benefits to the Vegetation Resource under Alternative1 include:

a. Prescribed burns and a limited amount of noxious plant removal on acquired lands will slightly improve quantity and quality of vegetation.

b. There will be less impact to vegetation because a lower level of visitor use would likely occur under this alternative than the Proposed Action.

B. Wildlife/T&E/Fisheries

The impacts under this alternative would be the same as those of the Proposed Action except:

Impact: Visitors would still be concentrated in areas like Wilson Valley, due to lack of additional trails and access points. This will have a continuing negative impact on wildlife and habitat improvements where concentrated visitor use occurs.

Mitigation: Institute seasonal closures if warranted and provide limited interpretive information stressing low impact use.

Impact: Fisheries and riparian habitats will continue to decline without an aggressive eradication/control program for noxious plants. In those areas dominated by saltcedar, native tree species such as willows and cottonwood will likely not re-establish

without supplemental planting.

Mitigation: Continue the current level of eradication

Impact: The lack of fencing on Bear Creek will allow livestock to continue grazing in riparian and aquatic habitats.

Mitigation: When the current grazing lease on Bear Creek expires, BLM's Standards and Guidelines for livestock grazing will then apply. This will decrease impacts to this habitat.

C. Cultural Resources

The impacts under this alternative will be the same as the Proposed Action except:

Impact: There will be continued and cumulative impacts to cultural sites as visitor use concentrates in current high-use areas.

Mitigation: Periodically monitor known cultural sites. Implement Cooperative Agreements with academic institutions. Ensure that location information for cultural sites is kept classified.

Impact: Maintaining the current level of livestock grazing could continue impacts to cultural sites.

Mitigation: Enforce BLM's Standards and Guidelines for livestock grazing.

D. Recreation

Impact: There will be more contact between visitors on the trails and trailheads with increasing recreation and lack of adequate distribution of visitor use (i.e., expanded trail system).

Mitigation: Providing an updated map for visitor use will make visitors aware of the extent of the trail network within the CCNA.

Impact: There will only be minimal provisions for disabled access without a universally-accessible loop trail.

Mitigation: None planned, due to the nature of this alternative.

Impact: There will be fewer camping opportunities throughout the CCNA, and possibly an increase in unauthorized camping along the North Fork, particularly during periods of high water. There will continue to be unrealized hunting, wildlife viewing, and other recreational opportunities without an expanded trail system. There could also be additional problems dealing with visitor safety and increased trespass on adjacent private land.

Mitigation: None planned, due to the nature of this alternative.

Impact: Allowing target shooting will result in continuing user conflicts.

Mitigation: Designate shooting areas in locations which will minimize interaction among other users.

Benefits to the Recreation Resource under Alternative 1 include:

More land will be available for

recreational opportunities when several ongoing acquisitions have been completed.

E. Wilderness/Wild & Scenic Rivers

Impact: This alternative would not adequately protect the Wild and Scenic River (W&SR) potential of Cache Creek from future diversion proposals or other developments. Adequate legal protection can only come from a W&SR suitability study and determination.

Mitigation: None planned, due to the nature of this alternative.

Impact: Within the WSA, recreation would increase in those areas with adequate trails, possibly diminishing the wilderness experience and solitude among some recreationists in these more accessible areas.

Mitigation: None planned, due to the nature of this alternative.

Benefits to the Wilderness Resource under Alternative 1 include:

Wilderness Interim Management Policy would continue to ensure that the WSA remains suitable for possible future wilderness designation.

F. Soil/Water/Air

Impact: There would be a slight decrease in soils impacts, as no new trails would be built, however this would result in a higher level of use on existing trails.

Mitigation: None

Impact: Bear Creek would not be fenced to exclude livestock.

Mitigation: When BLM Standards and Guidelines for livestock grazing become effective, the allowable season of use and stocking rate would minimize impacts to Bear Creek.

G. Socio-Economics

The impacts under this alternative would be the same as those of the Proposed Action except:

Impact: This alternative would not result in a substantial increase in boating on Cache Creek. This would simply continue the status quo. There may be some lost economic opportunities for concessionaires and local businesses under this alternative.

Mitigation: None planned, due to the nature of this alternative.

Impact: The manner and degree of mining and grazing would remain the same, except for acquired lands, particularly the former Payne Ranch. In this case there would be no new grazing or selling of saleable mineral materials (rock, sand, gravel). This would affect livestock operators and commercial rock collectors who previously operated here. However, under this alternative, mining of locatables (gold, silver, etc.) and leasables (geothermal, oil, gas) would be permitted on acquired lands.

Mitigation: These activities would be allowed to operate under permits.

Benefits to the Socio-Economic Resource under Alternative 1 include:

a. There would be some increase in the number of visitors as additional lands are acquired by BLM. This would result in positive benefits to local businesses supplying food, lodging, gasoline, and supplies.

b. Mining for leasables and locatables would bring in income for the mining industry.

H. Scenic/Visual

Impact: In areas of concentrated use, human impact would become more apparent, including litter, vegetation damage, and soils damage.

Mitigation: Utilize environmental education, use of law enforcement patrols, and maintenance of existing facilities.

Benefits to the Scenic/Visual Resource under Alternative 1 include:

Continuing the current level of prescribed burning will help to reduce the severity of wildfires, along with the impacts of the resultant fire suppression activities such as dozer lines.

Alternative 2 - Expansion of Primitive Recreation Opportunities, Eliminating All Conflicting Uses, Demands, and Allocations

A. Vegetation

The impacts under this alternative would be the same as those of the Proposed Action except:

Impact: With the elimination of grazing, the invasion of some noxious plants could increase in the upland areas. Since grazing can be used under carefully controlled conditions as a tool to encourage the growth of beneficial native vegetation, the elimination of grazing could result in worsening range quality in those areas infested with noxious plants.

Mitigation: Other means to control the spread of noxious weeds can be implemented including burning, manual removal, use of herbicides, and conversion to native species.

Benefits to the Vegetation Resource under Alternative 2 include:

a. There will be reduced damage to vegetation from fewer vehicles. In certain areas there would be no vehicles allowed, except on designated roads.

b. The one grazing lease within the Perkins Creek Allotment would be cancelled. This could result in some beneficial impacts to vegetation. With the elimination of livestock grazing on acquired lands, riparian values would be enhanced without the need for expensive fencing.

c. Site-specific impact to vegetation would be eliminated as a result of the CCNA being withdrawn from mineral entry.

B. Wildlife/T&E/Fisheries

The impacts under this alternative would be the same as those of the Proposed Action except:

Impact: Not implementing seasonal closures could result in disturbance to breeding wildlife from increased visitor use. This could potentially have a significant impact to breeding wildlife during high-use periods such as the spring turkey hunting season.

Mitigation: In the event that serious impacts to wildlife are documented, a permit system will be initiated to limit the number of visitors during this time.

Impact: Elimination of grazing on lands acquired by BLM could result in further invasion of noxious plants in uplands, resulting in negative impacts to beneficial wildlife forage.

Mitigation: Other means to control the spread of noxious weeds can be implemented including burning, manual removal, use of herbicides, and conversion to native species.

Benefits to the Wildlife Resource under Alternative 2 include:

a. Vehicle closures would be a positive impact to wildlife and wildlife habitat by an improvement in the quantity and quality of forage, and by less disturbance from noise.

b. The elimination of all non-hunting shooting would benefit wildlife by less disturbance from the noise associated with target shooting.

C. Cultural Resources

The impacts under this alternative would be the same as those for the Proposed Action except:

Impact: By lifting the seasonal closure, more visitor use would occur in the spring, causing more of a cumulative negative impact to cultural sites in high-use areas.

Mitigation: Any new trail construction would be routed away from known cultural sites. Interpretation and stressing low impact use will be used to increase visitor awareness to the sensitivity of these areas.

Benefits to the Cultural Resource under Alternative 2 include:

a. Prohibiting grazing would prevent disturbance from trampling, wallowing, or cattle trailing in these sensitive areas.

b. Decreased vehicle use would be beneficial to cultural resources by less ground disturbances.

D. Recreation

The impacts under this alternative would be the same as for the Proposed Action except:

Impact: Decreased vehicle use would enhance certain areas for hiking and horseback riding, but would decrease recreational opportunities for motorized recreation and disabled users.

Mitigation: Refer recreational vehicle users to nearby BLM lands where this activity is encouraged; there would be no mitigation for disabled use.

Impact: This alternative eliminates non-hunting shooting opportunities.

Mitigation: Refer recreational shooters to designated sites on nearby BLM lands outside of the CCNA where this activity is more appropriate.

Benefits to the Recreation Resource under Alternative 2 include:

a. Riparian habitat and the overall primitive recreation experience would improve when grazing is eliminated.

b. Elimination of wildlife seasonal closures would enhance wildlife viewing opportunities, hunting, and other primitive recreation by allowing access into the closure area.

c. Opportunities for boating would be improved with legal access over Cache Creek Dam.

d. Solitude and quiet recreational experiences would be enhanced by elimination of target shooting.

E. Wilderness/Wild & Scenic Rivers

The impacts under this alternative would be the same as for the Proposed Action.

Benefits to this resource under Alternative 2 include:

The emphasis on primitive recreation would ensure resource protection while maximizing access for hikers and horseback riders.

F. Soil/Water/Air

The impacts under this alternative would be the same as those from the Proposed Action except:

Impact: Livestock would not be used as a management tool to reduce noxious plants or to encourage beneficial native species.

Mitigation: Other means to control the spread of noxious weeds can be implemented including burning, use of herbicides, and conversion to native species.

Benefits to the Soil/Water/Air Resource under Alternative 2 include:

If all grazing is cancelled, slight improvements to soil and water quality in the Perkins Creek Ridge Allotment and throughout the Payne Ranch acquisition would result.

G. Socio-Economics

The impacts under this alternative would be the same as those for the Proposed Action except:

Impact: Local livestock operators will be negatively affected with the elimination of existing grazing on the Perkins Creek Allotment, as well as the termination of grazing on the Payne Ranch acquisition when the lease expired in June, 2001.

Mitigation: None

Impact: Boating access over Cache Creek Dam could interfere with onsite operations, as well as cause liability and security concerns for Yolo County Flood Control and Water Conservation District.

Mitigation: Strict regulation requiring permits and limiting use seasonally, by number, and by water flows can help reduce impacts here.

H. Scenic/Visual

The impacts under this alternative would be the same as those for the Proposed Action.

Benefits to this resource under Alternative 2 include:

The overall scenic quality of the area would increase with the elimination of grazing, due to less visible disturbance to streambanks, hillsides, and riparian areas which have been impacted by grazing.

Alternative 3 - Providing the Widest Range of Recreational Opportunities While Allowing Other Uses Which Do Not Detract From the Recreational Experience

A. Vegetation/Riparian

The impacts under this alternative would be the same as those for the Proposed Action except:

Impact: Additional developments such as campgrounds, trailheads, parking areas, etc. would remove more vegetation from these areas and result in increased numbers of visitors. This could also result in increased use of vegetation for firewood, and local concentrated use in certain areas.

Mitigation: Establishment of new access points and visitor information (maps, brochures, etc.) will help spread out visitors and promote low-impact use.

Impact: Increased vehicle use in designated areas would result in more localized damage to vegetation.

Mitigation: This use would be minimal, as any travel off a designated road or trail would not be allowed. If any sensitive habitats would be threatened by vehicular use, these would be barriered off to the extent possible.

Benefits to the Vegetative Resource under Alternative 3 include:

a. The elimination of grazing would improve riparian and fisheries habitat without the need for fencing.

b. Intensive management of noxious plants using methods other than grazing would decrease the proliferation of these species within certain areas and would result in decreased competition with native and other desirable plant species.

B. Wildlife/T&E/Fisheries

The impacts under this alternative would be the same as those for the Proposed Action except:

Impact: There could be significant impacts to breeding wildlife by not implementing any seasonal closures. There could be impacts to nesting bald eagles by visitors approaching too close to an active nest. The stress associated with this increased use could also force species such as elk away to lower quality habitats. Other wildlife species such as waterfowl and songbirds could be impacted as well.

Mitigation: If monitoring shows that an unacceptable level of impact is occurring to wildlife during the breeding season, closures can be implemented to prevent disturbance during this critical time. This will be

mandatory for a listed species such as the bald eagle.

Impact: There would be other site-specific impacts to wildlife populations in general from an increase in visitors as a result of additional trails, shooting ranges, and other facilities.

Mitigation: This impact can be lessened by providing visitor use information which emphasizes low impact use.

Impact: In those areas where increased vehicle use would be allowed, there would be local impacts to wildlife populations, primarily from noise. Wildlife habitat may also be impacted in these areas by localized effects on vegetation.

Mitigation: This impact is expected to be minor, and vehicular use will not be allowed off any designated road or trail.

Benefits to the Wildlife Resource under Alternative 3 include:

a. The elimination of all grazing would result in less competition for forage between wildlife populations and livestock in those areas currently being grazed.

b. With the elimination of grazing, riparian and aquatic habitats in Bear Creek would improve (cleaner water, more vegetation, less soils problems).

C. Cultural Resources

The impacts under this alternative would be the same as those for the Proposed Action except:

Impact: If placed at or near cultural sites, a greater number of trails or other developments would create an adverse impact to cultural resources by increasing access to sensitive areas.

Mitigation: Any new trail construction or other facilities construction will be planned to avoid to the extent possible any known archaeological sites.

Impact: An increase in recreation, including undesignated camping areas, construction of waste disposal holes and fire rings, trails, rafting stop-offs, and other disturbance of historical and archaeological sites could be a significant negative impact, resulting in damage to sensitive cultural resources.

Mitigation: Any new facilities will avoid cultural sites to the extent possible. Visitor use information will emphasize low impact uses and the preservation of archaeological resources.

D. Recreation

The impacts under this alternative would be the same as those for the Proposed Action except:

Impact: Unlimited boating would maximize boating opportunities but may decrease the quality of experience with increased visitor contact. Increased visitor use could result in an increase in sanitation and litter problems.

Mitigation: Boating use will be monitored for increased use. Ultimately some restrictions may become necessary if impacts from increased use reach an unacceptable level. Visitor information will emphasize low impact use.

Impact: More conflicts could result from an increase in the number of visitors and noise generated from firearms.

Mitigation: Additional access points will help to disperse visitor use. Visitor use information will emphasize low impact uses. Target shooters will be limited to designated sites.

Impact: Increased shooting could result in an increase in noise, litter, vandalism, and safety concerns from other users.

Mitigation: Emphasize environmental education and enforcement of regulations. Seek the support of sports shooting groups to maintain these sites, pick up litter, etc.

Impact: Allowing increased vehicle use in Zones B, D, E and F will promote vehicular recreation opportunities, but will reduce the quality of experience for non-vehicular users.

Mitigation: Any vehicular use will be authorized on designated roads and trails only.

Benefits to the Recreation Resource under Alternative 3 include:

a. Additional developments (campgrounds, trailheads, parking and shooting ranges)would accommodate a wider range of visitors and provide additional access and camping opportunities.

b. Elimination of seasonal closures would significantly increase recreational opportunities in the spring.

c. Recreational shooters would be accommodated by establishing shooting ranges.

d. Establishing a sport fishery in Bear Creek would increase recreational fishing opportunities in an area with good public access.

e. Expanding the trail system even more than under the Proposed Action would enhance recreation by further dispersing people and opening additional areas.

f. Increased public access, especially in Zones B, C, D, and F, would allow recreational opportunities in areas now legally inaccessible.

g. By using the Blue Ridge Ranch house as a base, a caretaker or other volunteers will enhance management of the recreation program in that portion of the CCNA through expanded maintenance capabilities, more effective dispersal of information, and better visitor use information.

h. Disabled access will be somewhat enhanced through additional vehicular access.

E. Wilderness/Wild & Scenic Rivers

The impacts under this alternative would be the same as those for the Proposed Action except:

Impact: More extensive recreational opportunities such as permitting target shooting would reduce enjoyment of the wilderness values of the area by people seeking solitude and a more natural recreational experience.

Mitigation: Additional access points will help to disperse visitors. Visitor use information will emphasize low impact uses. Designated shooting ranges would not be located within the WSA.

F. Soil/Water/Air

The impacts under this alternative would be the same as those for the Proposed Action except:

Impact: Increased soil erosion can be anticipated with a greatly expanded trail system, additional trailheads with expanded parking areas, and increased visitor use.

Mitigation: Existing trails will be monitored for soils-related damages on a yearly basis. If problems occur on trails, these will be repaired. Any new trail construction or upgrades to existing trails will follow BLM guidelines to minimize potential soils problems.

Impact: More visitors will also increase the potential to negatively impact water quality through foot and equestrian traffic, and unsanitary practices close to water sources.

Mitigation: Visitor use information will emphasize low impact camping techniques. Uniformed personnel will patrol main trails during high-use times.

Impact: Noxious weeds could spread because livestock would not be used as a management tool to reduce weeds.

Mitigation: Other alternatives including use of fire, mowing, herbicides, and vegetative conversions would be utilized to help control noxious weeds.

Benefits to the Soil/Water/Air Resource under Alternative 3 include:

Grazing would not be allowed. This would result in less soil erosion, trailing scars, and improved water quality.

G. Socio-Economics

The impacts under this alternative would be the same as those for the Proposed Action except:

Impact: Boating access over Cache Creek Dam could interfere with onsite operations, as well as cause liability and security concerns for Yolo County Flood Control and Water Conservation District.

Mitigation: Strict regulation requiring permits and limiting use seasonally, by number, and by water flows can help reduce impacts here.

Impact: The elimination of existing grazing leases and not permitting any new grazing on acquired lands would result in a decrease in income for local livestock operators currently grazing.

Mitigation: None

Benefits to the Socio-Economic Resource under Alternative 3 include:

There could be an even greater increase in boating revenues to concessionaires and local businesses due to the increased level of rafting and other uses allowed under this alternative. This would also result in an increase in revenues to Yolo County from increased visitor use at Cache Creek Canyon Regional Park. Other concessions such as horseback rides and guiding services would benefit too.

H. Scenic/Visual

The impacts under this alternative would be the same as those for the Proposed Action except:

Impact: Scenic quality would decrease slightly from increasing developments (i.e., trails, new road re-routes, campgrounds, etc.) and from increased vehicle use in certain areas.

Mitigation: Any new facilities construction will evaluate and minimize impacts to the viewshed. Any increase in vehicle use will only occur on designated roads and trails.

Benefits to the Scenic/Visual Resource under Alternative 3 include:

Scenic values would improve by eliminating livestock grazing, especially along Bear Creek.

Alternative 4 - Protection of Resource Values, While De-emphasizing Increased Recreational Use.

A. Vegetation

Impact: No relevant impact anticipated.

Benefits to this resource under Alternative 4 include:

a. Intensive efforts to eradicate noxious plants (yellow starthistle, medusahead, perennial pepperweed, saltcedar, and others) would benefit native vegetation by removing competition. This would also help in the recovery of those habitats invaded by these plants.

b. There would be less vehicular damage to rare plants and habitat due to restrictions on vehicle access. This would result in these populations of plants being afforded somewhat better protection.

c. Fewer trails and trailheads means that less vegetation will be disturbed during construction of these facilities.

d. Expanded prescribed burning would create more improved areas of vegetation. This would improve the quantity and quality of forage available for wildlife species.

e. Greater emphasis on active riparian improvements (planting suitable vegetation, riparian fencing) would result in a higher degree of habitat enhancement.

B. Wildlife/T&E/Fisheries

Impact: No relevant impact anticipated.

Benefits to the Wildlife Resource under Alternative 4 include:

a. The decreased level of trail development would result in less displacement of wildlife caused by visitor use.

b. A decrease in human activity would result in less impact to breeding bald eagles within the remote river corridor.

c. Restrictions on vehicle access in identified areas will result in less direct disturbance to wildlife species.

d. An expanded prescribed burn program will result in more improved habitat for wildlife populations. When combined with other habitat development projects (seedings, water developments) this will result in a greater degree of improvement in habitat conditions.

e. More intensive population management (stocking fish, transplanting elk, turkeys, etc. if warranted) will augment local populations.

C. Cultural Resources

Impact: No relevant impact anticipated.

Benefits to Cultural Resources under Alternative 4 include:

a. Limited boating use and trail development would have a positive impact on cultural resources by reducing visitor use and lessening the potential damage caused by disturbance to cultural sites.

b. Elimination of livestock grazing on or near cultural sites on lands which BLM acquires will decrease the potential for site disturbance.

c. The wildlife breeding season closure keeps visitors out and away from some archaeological sites, thus lessening impacts to cultural resources for about half of the high-use season.

D. Recreation

Impact: Prohibiting overnight camping between the Redbud Trailhead and Cache Creek at Baton Flat would force visitors to cross the creek to camp. During high water and the potential of a wildlife breeding season closure, this would not be available. This restriction could seriously limit backpacking and camping opportunities within this popular portion of Cache Creek.

Mitigation: The public could be directed to other areas for overnight camping such as the Payne Ranch acquisition, Judge Davis Trail and County Line Ridge areas.

Impact: Not constructing a foot/horse crossing near Baton Flat would restrict access to the central part of Cache Creek (via the Redbud trail) for several months each year. Some users may attempt to cross the river anyway in unsafe high water flows, possibly becoming trapped across the creek.

Mitigation: Other alternative sites would be recommended for access. As additional lands are acquired, access opportunities to more remote areas of Cache Creek will expand.

Impact: Boating opportunities would be limited by seasonal restrictions on the North Fork, and year-round closure on Cache Creek from Cache Creek Dam to the confluence with the North Fork.

Mitigation: Promote the new boating put-in located at Buck Island.

Impact: Prohibiting all OHV use would result in the elimination of existing use, particularly in Zone B.

Mitigation: Provide alternatives for OHV use at other designated OHV

areas.

Impact: Establishing a less extensive trail system would mean less dispersion of visitors, resulting in more contacts between individuals.

Mitigation: Providing an updated map of the Cache Creek public lands will inform visitors of the locations of alternate trails.

Benefits to this resource under Alternative 4 include:

Prohibition of target shooting would result in target shooters being advised to move to other nearby available areas, and would be a positive impact for those users who want to avoid the disturbance from target shooting.

E. Wilderness / Wild & Scenic River

The impacts under this alternative would be the same as those for the Proposed Action except:

Impact: Constructing fewer trails would maintain most of the area in a primitive condition, but would also limit opportunities for solitude because users will be more concentrated on the existing trail system.

Mitigation: Providing an updated map of the Cache Creek public lands and other pertinent user information will inform visitors of the locations of alternate trails.

F. Soil/Water/Air

Impact: Construction of new wildlife ponds may impact water supplies for downstream users.

Mitigation: This impact is expected to be minimal. Any proposed water developments will be processed through the State Division of Water Rights.

Impact: Intensive prescribed burning is proposed in this alternative. In the short term there would be reduction in air and water quality from burning, and localized increases in soil erosion.

Mitigation: Conduct prescribed burns only on permissible days, burning in small mosaic patches to minimize erosion potential.

Benefits to the Soil/Water/Air Resource under Alternative 4 include:

a. There would be a slight reduction in the amount of trail and trailhead parking area construction, resulting in less soil disturbance.
b. Prescribed burns will help to decrease the chances of larger wildfires and associated suppression efforts.

G. Socio-economics

Impact: Commercial rafting levels would not increase, lowering potential income.

Mitigation: At this point in time, commercial rafting only occurs on Cache Creek from Buck Island downstream. This area would continue to be recommended for

commercial rafting.

Impact: Fewer visitors, due to less recreational development, could result in less than the potential amount of revenues to local businesses.

Mitigation: None

Impact: Managed grazing according to BLM's Standards and Guidelines could result in decreased revenues to livestock operators who conduct any grazing on public lands.

Mitigation: None

H. Scenic

Impact: Intensive prescribed burning would result in greater short-term negative impacts to visual resources.

Mitigation: None

Impact: Increased habitat development could detract from the naturalness of the CCNA.

Mitigation: Habitat improvement projects will be designed to minimize contrast with surrounding landscapes. Some projects will improve the visual quality, such as controlling noxious vegetation.

Benefits to the Scenic Resource under Alternative 4 include:

a. No new trail developments or other visitor use facilities would eliminate further intrusion at these sites.
b. Prescribed burns would help to minimize a far greater future visual impact from the aftermath of larger wildfires.

Chapter 5: Monitoring Plan

BIOLOGICAL RESOURCES

Bald Eagles

Monitoring of the federally-threatened bald eagle will be conducted yearly within this important breeding and wintering area.

Known nest sites will be monitored three times yearly during:

(1) mid-February - early March to confirm occupancy of nest

(2) mid-April - early May to confirm successful hatching of any young;

(3) late June - mid-July to confirm fledgling success.

Monitoring of nest sites at this time will be completed on foot because aerial surveys by helicopter could unnecessarily disrupt breeding and rearing activity.

If funding permits, an annual mid-winter helicopter survey will be conducted to coincide as closely as possible with the nationwide mid-winter bald eagle count. This is usually done during the middle of January. The survey route will cover Cache Creek from Cache Creek Dam to Rumsey, and the North Fork from the northern end of Indian Valley Reservoir downstream to the confluence with Cache Creek.

Other winter monitoring will be done on-the-ground during site visits to the CCNA and during the mid-winter guided eagle hikes.

If additional nests are observed during the annual winter helicopter survey, these will be verified on-the-ground during the breeding season.

Tule Elk

The tule elk herd will be surveyed once a year by helicopter to determine fluctuations in herd size. CDFG will conduct the survey with assistance from BLM, dependent upon adequate funding. This survey will be a herd composition count and will document the locations and size of the three subherds within the Cache Creek area. Surveys will attempt to determine the locations of sensitive elk habitat, such as calving areas.

If funding allows, elk in each subherd will be collared with gps units to facilitate tracking of elk on-the-ground throughout the year.

Other habitat monitoring will occur on-the-ground, primarily elk use of habitat improvement projects (seedings, burns, water developments).

Other Wildlife Surveys

Composition counts for blacktail deer will be completed yearly by CDFG dependent upon funding. Other wildlife surveys will be completed periodically as necessary.

Rare Plant Populations

Known populations of rare plants will be surveyed once every three years during the appropriate flowering season. Surveys will focus on trend and any disturbance or potential disturbance which could occur.

Other surveys to inventory for new populations will coincide with the monitoring surveys conducted during the appropriate flowering season. These surveys will focus in sensitive

habitats for these plants, and throughout new land acquisitions.

Riparian Habitat

Cache Creek will be monitored on foot once every three years from Cache Creek Dam downstream to the confluence with Bear Creek. The North Fork will be monitored from Highway 20 downstream to the confluence with Cache Creek. Monitoring will focus on habitat conditions, amount of reproduction, and invasion of non-native exotics, including saltcedar, giant reed, and pampas grass. Photos will be taken at established photo-points located every ¼ mile in order to document changes over time.

Other monitoring may occur on an as-needed basis such as surveys for the presence of hydrilla, an aquatic noxious weed, which is a major threat to the ecosystem of Clear Lake. Lake County and the State Department of Agriculture are currently involved in an intensive effort to eradicate this plant from Clear Lake. In recent years BLM has monitored Cache Creek from Cache Creek Dam downstream to the confluence with Bear Creek throughout the duration of this project. If hydrilla spreads beyond Cache Creek Dam into Cache Creek, it could potentially become a threat to the Sacramento River and Delta ecosystems.

WILDERNESS

The Rocky Creek/Cache Creek Wilderness Study Area (WSA) will be monitored once yearly from the air (dependent upon funding) and a minimum of once a month on-the-ground. Aerial flights will coincide with other surveys, i.e. bald eagle winter surveys and other overflights. On-the-ground monitoring will coincide with other field visits into the CCNA.

Monitoring will primarily focus on signs of any unauthorized activities, including vehicles in closure areas, road building, grazing trespass, among others. If any unauthorized uses are detected, an investigation will be conducted followed by appropriate action to resolve these violations.

To inform the public as to the location of the WSA boundary, all trails or other access points leading into the WSA from private or other public lands will be marked with boundary signs.

CULTURAL RESOURCES

A monitoring plan has been in place for several years for the 40+ identified cultural sites within the CCNA. The plan consists of monitoring sites from established photo points by using erosion stakes placed at measured spaces along the creek corridor, and by making field visits to each site at intervals varying from annually to as much as ten years. The sites are evaluated on visible site contents, nature and rate of deterioration, possible threats, public versus private ownership, and current best use of the cultural resource. Each cultural resource is assigned to one or more of seven possible management classifications as follows:

1. Conservation for future use
2. Management use

3. Socio-cultural use
4. Public use
5. Discharged use
6. Scientific study or use
7. Compatible uses

As cultural sites are monitored over the years, changes in specific sites from natural forces, visitors, or management decisions associated with other resources are recorded. Photos can be used to assess changes. Based upon these site evaluations, necessary action and management decisions can then be made with constructive feedback for past management actions and/or the need for further action.

A field book depicting cultural site locations is kept in the Ukiah Field Office. This book contains a map of the area and site locations, individual site records, photos and slides, location maps for erosion stakes and photo points, resource condition information, and management-use classification.

RECREATION

Visitor-Use Monitoring

The BLM may provide survey cards at the North Fork parking lot and other access points where appropriate. These cards provide important feedback on what types of recreation activities are most sought after within the CCNA. It also serves as a mechanism for providing the public an opportunity to comment on how we can improve our management of the area. Visitor Services and Law Enforcement Rangers will also include visitor-use observations as part of their written daily reports.

Trail Monitoring

Each trail will be traveled a minimum of once each year, preferably twice, (budget and staffing permitting) to determine trail maintenance needs, eliminate safety hazards, ensure adequate signing, and to get an estimate of the degree of trail use. Monitoring will be established through visual reconnaissance, followed by trip reports reviewed by managers to maintain records of trail condition and use.

Rafting use Monitoring

BLM will monitor rafting, both by commercial rafters (i.e., Buck Island to Cache Creek Canyon Regional Park run) and private boaters, to at least get a feel for trends and to identify any problems associated with rafting on Cache Creek. This will involve one or two weekend field trips a year to get an overall look at weekend river-use during the high-use periods. Those operating under special recreation use-permits will be monitored as appropriate to ensure compliance with permit stipulations.

Access Monitoring

BLM will frequently monitor access points along the perimeter of the CCNA to guard against unauthorized uses, particularly illegal vehicle access. Monitoring will normally involve driving along perimeter roads such as Hwys. 20 and 16, as well as interior roads such as Yolo County Road 40, Langs Peak Road to Buck Island, Fiske Creek Road. Monitoring will focus on intrusions, such as cut fences, and open gates. Interior patrols will also look for vehicle tracks

or other signs of unauthorized activities. Patrols will be conducted by both law enforcement rangers as part of their normal patrol responsibilities and by other employees and volunteers to ensure that management prescriptions for the area are not being compromised.

Chapter 6: Individuals and Agencies Consulted

- Jim Ball, Yolo County Parks and Airport Manager
- Frank Sieferman, Yolo County Board of Supervisors
- James Eagan, Yolo County Flood Control and Water Conservation District
- Mary-Ann Warmerdam, Yolo County Flood Control and Water Conservation District
- Craig Thomsen, Dept. of Agronomy and Range Science, UC Davis
- John Kemper, UC Davis
- Rob Thayer, UC Davis
- Jeff Smith, Lake County Board of Supervisors
- Caroline Constable, Lake County Emergency Services Director
- Kim Clymire, Lake County Public Services Department Director
- Morty Prisament, Lake County Flood Control/Lakebed Mgmt.
- Bill Reed, Lake County Fish and Wildlife Advisory Committee
- Douglas White, Colusa County Board of Supervisors
- Steve Evans, Friends of the River, Sacramento
- Susan Scheufele, American Whitewater Association, Santa Cruz
- Jim Crenshaw, American Whitewater Association, Woodland
- Mike Ammon, Project Manager, Boating Facilities Division, California State Dept. of Boating and Waterways
- Mark Gholson, Whitewater Adventures, Napa
- Rick Wilson, Cache Canyon Whitewater River Trips, Rumsey
- Ryan Henson, California Wilderness Coalition, Davis
- Jim Eaton, California Wilderness Coalition, Davis
- Andrew Fulks, California Wilderness Coalition, Davis
- Jan Lowrey, Cache Creek Conservancy
- James and Anne Austin, Backcountry Horsemen
- Jim Swanson, California Dept. of Fish and Game (CDFG)
- Jack Booth, CDFG

- Phil Pridmore, CDFG
- Rick Macedo, CDFG
- Steve Cannata, CDFG
- Irene Davies, U.S. Army Corps of Engineers (COE)
- Sandy Britzman, COE
- Phil Hogan, Natural Resources Conservation Service (USDA)
- Phil Detrich, U.S. Fish and Wildlife Service, Sacramento
- Ray Krauss, Homestake Mining Company
- Tim Playford, Dow AgroSciences
- Tim Baldwin, Dow AgroSciences
- Ray Carmen, Cache Creek Dam Keeper
- Mike Ford, Rocky Mountain Elk Foundation
- Chet Vogt, California Cattlemen's Association
- Kesner Flores, Cortina Rancheria

Consultation with the public and pertinent Native American Groups and other organizations including the Native American Heritage Commission regarding the use, allocation, protection and condition of sites will continue. The purpose would be to identify changes in public attitudes and ascertain any new concerns for the cultural resources and measure the effectiveness of the management activities of this CRMP. Where any actions are proposed that may have impacts on the cultural resources, local Native American groups will be consulted to evaluate the implications of BLM actions. Cooperative Agreements with professional groups, colleges and universities will continue to be the proactive means of meeting the scientific research goals for the area as well as aiding in the mitigation of possible impacts to sites.

Local Native American representatives will be contacted to ensure cultural values are protected from incompatible land use activities, including:

.

- Mr. Kesner Flores, Cortina Rancheria
- Mr. Michael E. Mitchum, Cachil Dehe Band of Wintun Indians, Colusa Indian Community Council
- Mr. Philip Knight, Rumsey Rancheria Community Council
- Mrs. Rebecca Bill, Colusa
- Victoria Eugene, Cache Creek Rancheria
- Native American Heritage Commission, Sacramento
- Mr. Edward Wright, Cortina Rancheria
- Northwest Information Center of the California Archaeological Inventory
- Anthropology Department, University of California, Davis
- Anthropology Department, California State University, Sacramento
- Anthropology Department, California State University, Sonoma

Chapter 7: List of Preparers

- Gregg Mangan, Cache Creek Natural Area Manager (Team Lead)
- Scott Adams, Outdoor Recreation Planner
- Jeff Wilbanks, Outdoor Recreation Planner
- Pardee Bardwell, Range Conservationist
- James Dawson, Fuels Management Specialist
- Charles Whitcomb, Geologist
- Dave Fatch, NEPA
- Diane Knox, Geographic Information System/Maps
- Marlene Greenway, Archaeologist
- Julie Burcell, Archaeologist
- Bob Wick, Outdoor Recreation Planner

Appendices

Appendix 1 - Critical Elements for Proposed Action and Alternatives

Proposed Action:

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in all EA's and EIS's. If the resource or value is not present or is not affected by the proposed action or alternatives, it may be documented in the EA or EIS as a negative declaration.(BLM NEPA Handbook, App 5)

Critical Element	Affected? yes	no	Critical Element	Affected? yes	no
1. Air Quality (CAA, 1955) Frank Arriaza			2. T&E Species (ESA, 1973) Gregg Mangan or Pardee Bardwell		
3. Water Quality (Surface and Ground; SDWA amend 1996, CWA 1987, EO's 12580, 12088, 12372) Frank Arriaza			4. ACEC's (FLPMA, 1976) Gregg Mangan		
5. Wetlands/Riparian Zone (EO-11990) Pardee Bardwell			6. Hazardous & Solid Wastes (RCRA, 1976; CERCLA, 1980) Dave Fatch		
7. Floodplains (EO-11988) Pardee Bardwell			8. Farm Lands (SMARA, 1977) Charles Whitcomb		
9. Environmental Justice (EO-12898) Julie Burcell			10. Wilderness (FLPMA, 1976; WA, 1964) Jeff Wilbanks		
11. Native American Religious Concerns (AIRFA, 1978) Julie Burcell			12. Wild and Scenic Rivers (W&SRA, 1968) Jeff Wilbanks		
13. Cultural Resources (NHPA, 1966) Julie Burcell			14. Invasive, Non-Native Species (Lacey Act, Federal Noxious Weed Act of 1974) Pardee Bardwell		

In the following paragraphs describe the impacts (direct, indirect, and cumulative) to the above critical elements and all other resources that might be affected by the proposed action or alternatives. If a critical element is not affected, write a short explanation below, otherwise explain how the critical element is affected. For all impacts, describe a mitigation measure to reduce or eliminate that impact.

See NEPA Handbook, App5, for more info and references to BLM manual sections about these Critical Elements.

1. Air Quality

2. T&E Species

3. Water Quality

4. ACEC's

5. Wetlands/Riparian Zone

6. Hazardous & Solid Wastes

7. Floodplains

8. Farm Lands

9. Environmental Justice

10. Wilderness

11. Native American Religious Concerns

12. Wild and Scenic Rivers

13. Cultural Resources

14. Invasive, Non-Native Species

15. Other Resources

Alternative 1:

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in all EA's and EIS's. If the resource or value is not present or is not affected by the proposed action or alternatives, it may be documented in the EA or EIS as a negative declaration.(BLM NEPA Handbook, App 5)

Critical Element	Affected? yes	no	Critical Element	Affected? yes	no
1. Air Quality (CAA, 1955) Frank Arriaza			2. T&E Species (ESA, 1973) Gregg Mangan or Pardee Bardwell		
3. Water Quality (Surface and Ground; SDWA amend 1996, CWA 1987, EO's 12580, 12088, 12372) Frank Arriaza			4. ACEC's (FLPMA, 1976) Gregg Mangan		
5. Wetlands/Riparian Zone (EO-11990) Pardee Bardwell			6. Hazardous & Solid Wastes (RCRA, 1976; CERCLA, 1980) Dave Fatch		
7. Floodplains (EO-11988) Pardee Bardwell			8. Farm Lands (SMARA, 1977) Charles Whitcomb		
9. Environmental Justice (EO-12898) Julie Burcell			10. Wilderness (FLPMA, 1976; WA, 1964) Jeff Wilbanks		
11. Native American Religious Concerns (AIRFA, 1978) Julie Burcell			12. Wild and Scenic Rivers (W&SRA, 1968) Jeff Wilbanks		
13. Cultural Resources (NHPA, 1966) Julie Burcell			14. Invasive, Non-Native Species (Lacey Act, Federal Noxious Weed Act of 1974) Pardee Bardwell		

In the following paragraphs describe the impacts (direct, indirect, and cumulative) to the above critical elements and all other resources that might be affected by the proposed action or alternatives. If a critical element is not affected, write a short explanation below, otherwise explain how the critical element is affected. For all impacts, describe a mitigation measure to reduce or eliminate that impact.

See NEPA Handbook, App5, for more info and references to BLM manual sections about these Critical Elements.

1. Air Quality

2. T&E Species

3. Water Quality

4. ACEC's

5. Wetlands/Riparian Zone

6. Hazardous & Solid Wastes

7. Floodplains

8. Farm Lands

9. Environmental Justice

10. Wilderness

11. Native American Religious Concerns

12. Wild and Scenic Rivers

13. Cultural Resources

14. Invasive, Non-Native Species

15. Other Resources

Alternative 2:

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in all EA's and EIS's. If the resource or value is not present or is not affected by the proposed action or alternatives, it may be documented in the EA or EIS as a negative declaration.(BLM NEPA Handbook, App 5)

Critical Element	Affected? yes	no	Critical Element	Affected? yes	no
1. Air Quality (CAA, 1955) Frank Arriaza			2. T&E Species (ESA, 1973) Gregg Mangan or Pardee Bardwell		
3. Water Quality (Surface and Ground; SDWA amend 1996, CWA 1987, EO's 12580, 12088, 12372) Frank Arriaza			4. ACEC's (FLPMA, 1976) Gregg Mangan		
5. Wetlands/Riparian Zone (EO-11990) Pardee Bardwell			6. Hazardous & Solid Wastes (RCRA, 1976; CERCLA, 1980) Dave Fatch		
7. Floodplains (EO-11988) Pardee Bardwell			8. Farm Lands (SMARA, 1977) Charles Whitcomb		
9. Environmental Justice (EO-12898) Julie Burcell			10. Wilderness (FLPMA, 1976; WA, 1964) Jeff Wilbanks		
11. Native American Religious Concerns (AIRFA, 1978) Julie Burcell			12. Wild and Scenic Rivers (W&SRA, 1968) Jeff Wilbanks		
13. Cultural Resources (NHPA, 1966) Julie Burcell			14. Invasive, Non-Native Species (Lacey Act, Federal Noxious Weed Act of 1974) Pardee Bardwell		

In the following paragraphs describe the impacts (direct, indirect, and cumulative) to the above critical elements and all other resources that might be affected by the proposed action or alternatives. If a critical element is not affected, write a short explanation below, otherwise explain how the critical element is affected. For all impacts, describe a mitigation measure to reduce or eliminate that impact.

See NEPA Handbook, App5, for more info and references to BLM manual sections about these Critical Elements.

1. Air Quality

2. T&E Species

3. Water Quality

4. ACEC's

5. Wetlands/Riparian Zone

6. Hazardous & Solid Wastes

7. Floodplains

8. Farm Lands

9. Environmental Justice

10. Wilderness

11. Native American Religious Concerns

12. Wild and Scenic Rivers

13. Cultural Resources

14. Invasive, Non-Native Species

15. Other Resources

Alternative 3:

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in all EA's and EIS's. If the resource or value is not present or is not affected by the proposed action or alternatives, it may be documented in the EA or EIS as a negative declaration.(BLM NEPA Handbook, App 5)

Critical Element	Affected? yes	no	Critical Element	Affected? yes	no
1. Air Quality (CAA, 1955) Frank Arriaza			2. T&E Species (ESA, 1973) Gregg Mangan or Pardee Bardwell		
3. Water Quality (Surface and Ground; SDWA amend 1996, CWA 1987, EO's 12580, 12088, 12372) Frank Arriaza			4. ACEC's (FLPMA, 1976) Gregg Mangan		
5. Wetlands/Riparian Zone (EO-11990) Pardee Bardwell			6. Hazardous & Solid Wastes (RCRA, 1976; CERCLA, 1980) Dave Fatch		
7. Floodplains (EO-11988) Pardee Bardwell			8. Farm Lands (SMARA, 1977) Charles Whitcomb		
9. Environmental Justice (EO-12898) Julie Burcell			10. Wilderness (FLPMA, 1976; WA, 1964) Jeff Wilbanks		
11. Native American Religious Concerns (AIRFA, 1978) Julie Burcell			12. Wild and Scenic Rivers (W&SRA, 1968) Jeff Wilbanks		
13. Cultural Resources (NHPA, 1966) Julie Burcell			14. Invasive, Non-Native Species (Lacey Act, Federal Noxious Weed Act of 1974) Pardee Bardwell		

In the following paragraphs describe the impacts (direct, indirect, and cumulative) to the above critical elements and all other resources that might be affected by the proposed action or alternatives. If a critical element is not affected, write a short explanation below, otherwise explain how the critical element is affected. For all impacts, describe a mitigation measure to reduce or eliminate that impact.

See NEPA Handbook, App5, for more info and references to BLM manual sections about these Critical Elements.

1. Air Quality

2. T&E Species

3. Water Quality

4. ACEC's

5. Wetlands/Riparian Zone

6. Hazardous & Solid Wastes

7. Floodplains

8. Farm Lands

9. Environmental Justice

10. Wilderness

11. Native American Religious Concerns

12. Wild and Scenic Rivers

13. Cultural Resources

14. Invasive, Non-Native Species

15. Other Resources

Alternative 4:

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in all EA's and EIS's. If the resource or value is not present or is not affected by the proposed action or alternatives, it may be documented in the EA or EIS as a negative declaration.(BLM NEPA Handbook, App 5)

Critical Element	Affected? yes	no	Critical Element	Affected? yes	no
1. Air Quality (CAA, 1955) Frank Arriaza			2. T&E Species (ESA, 1973) Gregg Mangan or Pardee Bardwell		
3. Water Quality (Surface and Ground; SDWA amend 1996, CWA 1987, EO's 12580, 12088, 12372) Frank Arriaza			4. ACEC's (FLPMA, 1976) Gregg Mangan		
5. Wetlands/Riparian Zone (EO-11990) Pardee Bardwell			6. Hazardous & Solid Wastes (RCRA, 1976; CERCLA, 1980) Dave Fatch		
7. Floodplains (EO-11988) Pardee Bardwell			8. Farm Lands (SMARA, 1977) Charles Whitcomb		
9. Environmental Justice (EO-12898) Julie Burcell			10. Wilderness (FLPMA, 1976; WA, 1964) Jeff Wilbanks		
11. Native American Religious Concerns (AIRFA, 1978) Julie Burcell			12. Wild and Scenic Rivers (W&SRA, 1968) Jeff Wilbanks		
13. Cultural Resources (NHPA, 1966) Julie Burcell			14. Invasive, Non-Native Species (Lacey Act, Federal Noxious Weed Act of 1974) Pardee Bardwell		

In the following paragraphs describe the impacts (direct, indirect, and cumulative) to the above critical elements and all other resources that might be affected by the proposed action or alternatives. If a critical element is not affected, write a short explanation below, otherwise explain how the critical element is affected. For all impacts, describe a mitigation measure to reduce or eliminate that impact.

See NEPA Handbook, App5, for more info and references to BLM manual sections about these Critical Elements.

1. Air Quality

2. T&E Species

3. Water Quality

4. ACEC's

5. Wetlands/Riparian Zone

6. Hazardous & Solid Wastes

7. Floodplains

8. Farm Lands

9. Environmental Justice

10. Wilderness

11. Native American Religious Concerns

12. Wild and Scenic Rivers

13. Cultural Resources

14. Invasive, Non-Native Species

15. Other Resources

Appendix 2- Wild and Scenic River Eligibility and Preliminary Classification Report for Streams in the Cache Creek Natural Area

Introduction

The BLM is mandated to identify and evaluate all river and stream segments on Bureau administered public lands to determine if they are appropriate additions to the National Wild and Scenic Rivers System (NWSRS). Direction for this process is contained in section 5(D) of the Wild and Scenic Rivers Act of 1968 (the Act), the Final Revised USDA-USDI Guidelines for Eligibility, Classification and Management of River Areas (published in the Federal Register, 47 FR 39454, 1982), BLM Manual 8351, and several agency policy memoranda.

This report describes an assessment of streams and rivers in the Cache Creek Natural Area for the purposes of the Act. A total of nine stream or river segments were identified and analyzed for eligibility. Four of the nine were determined to be eligible. Several sources were consulted in identifying which segments to study, including the 1970 USDA/USDI Rivers List, the Nationwide Rivers Inventory, input from BLM public scoping meetings and from BLM resource specialists.

Background

The Act was passed in 1968 during an era when many of the Nation's rivers and streams were being dammed and diverted for flood control and irrigation. Its primary purpose was to provide a balance by protecting the resource values of certain outstanding rivers, and to retain these river segments in their free-flowing undammed or undiverted condition.

The National Wild and Scenic River study process has three distinct steps for evaluating identified river segments including:

1. A **determination of eligibility** for designation under the Act.

2. A **tentative classification** of each eligible segment as wild, scenic or recreational (each class having different management criteria).

3. Completion of a **Suitability Study/Environmental Impact Statement** to determine if an eligible river segment is suitable for designation under the Act.

Each of the steps is described in more detail below, although only steps one and two will be completed in this planning effort.

To be considered as eligible for designation under the Act, a river or river segment must currently be free-flowing and, within its immediate environment, the segment must have one or more outstandingly remarkable values including scenic, recreational, geologic, fish, wildlife, cultural, historic, or other similar values. There is no minimum length or flow requirements for the stream to be designated under the Act, as long as it meets the above two criteria. In fact, several intermittent rivers are already designated as wild or scenic rivers.

The boundaries of any river studied for potential addition to the NW&SRS, as specified in section 4(d) of the Act, are usually limited to that

area measured within one-quarter mile of the ordinary high watermark on each side of the river. Within the CCNA, our analysis has been limited to that boundary on all stream segments.

After determining that a river is eligible for inclusion in the NW&SRS, each river segment must be tentatively classified into one of the three categories contained in the Act (wild, scenic, or recreational). Classification is based only on the degree of naturalness and the extent of development of the river and adjacent lands as they exist at the time of the study, and not on the specific values. Therefore, a "scenic" river may be designated for reasons other than scenery, and a recreational river may not necessarily have outstandingly remarkable recreational resources. At this time the river is also placed under interim management status, and the BLM is required to protect the free-flowing and outstandingly remarkable values of the entire corridor under its jurisdiction.

If Congress designates a river or river segment, allowable land uses and management actions would be based on the classification. Congress may classify a river segment at or below the highest level for which it qualifies. Specific management strategies may vary according to classification, but would be designed to protect and enhance the outstandingly remarkable values of the river area. These specific management strategies are formulated during development of the management plan, which is required within 3 years of designation (Section 3(d)(1) of the Act).

The third step of the process, the suitability study, is an in-depth planning determination to provide a basis for recommending legislation. The study looks at issues and tradeoffs associated with W&SR designation including such factors as management feasibility, impacts to existing rights, landownership, impacts on other uses of the land, and state and local interest in designation. The W&SR Suitability Study/Environmental Impact Statement for the CCNA has been deferred until specific funding is earmarked for the effort. Public lands along eligible stream segments will remain under interim management protection until the suitability analysis is completed, or designation occurs.

The 9 stream segments within the CCNA include:

1. North Fork: Indian Valley Dam to confluence with Cache Creek.

2. Cache Creek Segment 1: Cache Creek Dam to confluence with North Fork.

3. Cache Creek Segment 2: North Fork to Bear Creek.

4. Cache Creek Segment 3: Bear Creek to Rumsey Bridge.

5. Bear Creek: Highway 20 bridge to confluence with Cache Creek.

6. Rocky Creek: BLM land boundary to confluence with Cache Creek.

7. Petrified Canyon: entire length.

8. Trout Creek: entire length.

9. Davis Creek: Davis Creek below Davis Creek Reservoir to confluence with Cache Creek.

The following **two criteria were used to determine the eligibility** of the study segments:

1. **Free-Flowing**

Free-flowing, as defined in section 16 (b) of the Act, means "existing or flowing in a natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway."

Free-flowing should not be confused with naturally flowing (i.e., flowing without any upstream human-influenced manipulation). The presence of impoundments above and below the segment, including impoundments that influence the flow through the study segment, and existing minor dams and diversion structures within the study reach will not by themselves render a river ineligible. There are many segments within the NWSRS downstream from a major dam, such as the Rogue River in Oregon and the lower Klamath River in California, or between dams, such as the Tuolumne River in California or the Rio Chama in New Mexico. Some components of the system, such as the Clackamas, Deschutes, and Snake Rivers in Oregon and the Trinity River in California even derive their recreational values, at least in part, from the flow manipulation from upstream dams.

2. **Outstandingly Remarkable Values**

The second criteria a river must meet to be eligible for inclusion in the NWSRS is the presence of one or more outstandingly remarkable scenic, recreational geologic, fish and wildlife, historic, cultural or other similar values. The term "outstandingly remarkable" is not precisely defined in the Act. Consequently, the determination of whether or not a river area contains outstandingly remarkable values is based on professional judgment of the planning team. The values must be river-related. For example, the presence of a nationally significant geologic feature within the river corridor does not automatically make the river eligible. The feature needs to be related to the presence of the river. Values are considered outstandingly remarkable if they are unique (rare, one-of-a-kind) or exemplary (best example of a more common value) compared to similar values in river corridors in the region. The region considered for comparison in this analysis was Northern California.

On stream segments with mixed ownership, the BLM's policy is to assess eligibility based only on outstandingly remarkable values found on public land portions of the corridor. Affects of landownership on manageability of the river as part of the W&SRS are not considered until the suitability phase of the analysis.

The **three classification categories for eligible rivers** are defined in section 2(b) of the Act as:

1. **Wild** river areas:

Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail with watersheds or shorelines

essentially primitive and waters unpolluted. These represent vestiges of primitive America.

2. **Scenic** river areas:

Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

3. **Recreational** river areas:

Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shoreline and that may have undergone some impoundment or diversion in the past.

A **wild** river would be a very undeveloped river with limited access. A **scenic** classification would be applied to a river segment that is more developed than a wild river and less developed than a recreational river. A **recreational** classification would be appropriate in developed areas, such as where a river runs parallel to roads or railroads with adjacent lands that have agricultural forestry, commercial or other developments, provided the waterway remains generally natural and riverine in appearance.

Water quality, water resources development, shoreline development, and accessibility are the criteria considered when determining classification. Each criteria is important, but the collective significance is more important. Each classification permits existing development. New developments compatible with designation are allowed, provided they are accomplished in an environmentally sound manner.

All river segments found to be eligible are placed under **interim management** protection until Congress designates them as wild or scenic, or they are found unsuitable and dropped from further consideration under the Act. Appropriate management guidelines, consistent with the provisions of the Act, will be adopted for interim management. More information about interim management guidelines can be obtained at the BLM office.

Where the (eligible) Wild and Scenic River and Wilderness Study Area designations overlap, the more stringent interim management guidelines will be followed. The interim management guidelines only affect lands under the BLM's jurisdiction, and certain projects where the Federal Government is a participant. They do not apply to private lands along the river corridors.

SUMMARY OF CACHE CREEK CRMP ELIGIBILITY/TENTATIVE CLASSIFICATION FINDINGS

1. North Fork: Indian Valley Dam to confluence with Cache Creek.

Conclusion: Eligible, based on wildlife and cultural values

Land Status Summary:

Management	Corridor Acreage
BLM	766.28
State	268.56

Pvt/Other	3305.61
Total	4340.45

Free-Flowing Determination: Yes.

There are several areas of fill and rip-rap along State Highway 20, and along the Spring Valley-Long Valley Road. Overall, these areas are set back from the stream, have minimal impacts on the channel, and are mostly screened by riparian vegetation. They are considered to be minor intrusions and do not impact the overall free-flowing condition of the segment.

Outstandingly Remarkable Values: Yes, wildlife and cultural values.

Along with the remainder of the Cache Creek corridor, this segment is considered to have exemplary wildlife values. The North Fork Segment is a major use area for the Cache Creek tule elk Herd. This herd is one of only a few free-roaming tule elk herds. In addition, the corridor is used as a wintering area for bald eagles, although not to the extent of downstream segments. River otters and beaver are also found along the segment.

The lower three miles of this segment are part of the Cache Creek Archaeological District which is on the National Register of Historic Places. The cultural values are considered nationally significant, and are directly river related. The Hill Patwin group used the rich resources from Cache Creek and the riparian corridor including fish, waterfowl, pond turtles and willow (for basket weaving).

Other Significant Values:

The North Fork has a cold water fishery of brown and rainbow trout along its entire length. Although this provides for recreational fishing, other areas in the region offer similar opportunities. The segment also offers floating and tubing opportunities that attracts mainly local visitors. Its primary significance is the lower 3 miles which offer access from the North Fork put in to the popular run through the Cache Creek Wilderness Study Area.

Tentative Classification: Scenic.

There are no impoundments on the segment. Only one bridge (Hwy. 20) crosses the North Fork. The upper and lower parts of the segment are unroaded, while the middle portion is paralleled by a county road and State Highway 20. However, the roads are not visible from the stream for the most part, and for much of their length are one-eighth to one-quarter mile from the creek. Water quality is good.

2. Cache Creek Segment 1: Cache Creek Dam to confluence with the North Fork.

Conclusion: Eligible, based on wildlife and cultural values.

Land Status Summary:

Management	Corridor Acreage
BLM	1285.27
State	21.32
Pvt/Other	1242.23

Total	2548.82

Free Flowing Determination: Yes.
The entire segment has no diversions or channelization below the Cache Creek Dam.

Outstandingly Remarkable Values: Yes, wildlife and cultural values.
Along with the remainder of the Cache Creek corridor, this segment is considered to have exemplary wildlife values. This area is used by the Cache Creek tule elk Herd. This herd is one of just a few free-roaming tule elk herds. In addition, the corridor is used as a wintering area for bald eagles. River otters and beaver are also found along the segment.
The lower three miles of this segment are part of the Cache Creek Archaeological District which is on the National Register of Historic Places. The cultural values are considered nationally significant, and are directly river related. The Hill Patwin group used the rich resources from Cache Creek and the riparian corridor including fish, waterfowl, pond turtles and willow (for basket weaving).

Other Significant Values:
This segment has the potential to be a quality recreational whitewater boating resource for expert paddlers. Lack of public access is the current limiting factor, and will be addressed elsewhere in the CRMP.

Tentative Classification: Wild.
No bridges, major access roads or other developments are located in this segment. Several firebreaks and two-track roads (ways) are visible from the stream, but are considered to be very minor intrusions. Much of the segment traverses the Cache Creek Wilderness Study Area, and contains outstanding natural and primitive recreation qualities. Overall, the level of development in this segment fits well within the parameters for wild classification.
Municipal and agricultural runoff from Clear Lake impacts the water quality throughout this segment. Algae blooms, turbidity and unpleasant odors regularly occur, especially during the summer months. Past cinnabar mining in the watershed has also resulted in mercury deposits in Clear Lake. The effects of this mining are unknown on Cache Creek itself. There are currently no known water quality based restrictions on swimming or fishing in this segment. Further data on water quality may preclude classification of this segment as wild. However, until this data is available, the BLM will base interim management on "wild" classification criteria.

3. Cache Creek Segment 2: North Fork to Bear Creek.

Conclusion: Eligible, based on wildlife, cultural, and recreational values.

Land Status Summary:

Management	Corridor Acreage
BLM	2396.40
State	123.16
Yolo Co.	24.49

Pvt/Other	2301.92
Total	4845.97

Free Flowing Determination: Yes.

The entire segment has no diversions or channelization.

Outstandingly Remarkable Values: Yes, wildlife, cultural, and recreational values.

Along with the remainder of the Cache Creek corridor, this segment is considered to have exemplary wildlife values. This segment is a major use area for the Cache Creek tule elk herd. This herd is one of just a few free- roaming tule elk herds. The Wilson Valley area is especially significant in that it serves as a primary calving area for the elk herd. In addition, this section of the Cache Creek corridor hosts one of the largest wintering populations of bald eagles in California.

The upper four miles of this segment (from the confluence to the lower part of Wilson Valley) are part of the Cache Creek Archaeological District which is on the National Register of Historic Places. The cultural values are considered nationally significant, and are directly river related. The Hill Patwin group used the rich resources from Cache Creek and the riparian corridor including fish, waterfowl, pond turtles and willow (for basket weaving). The District may be extended downstream to include an even greater part of this segment, once further archaeological assessments can be completed.

This segment of Cache Creek has several recreational attributes of regional significance. First, the bald eagles, elk and other wildlife along the corridor attract visitors from the Bay Area and beyond to view them. The corridor is also a popular wilderness float run, and is one of only a few whitewater rivers in northern California that normally has adequate flows to allow for boating throughout the summer. This is based on Cache Creek flows being augmented by irrigation releases from Clear Lake/Indian Valley Reservoir for downstream water users. The lower five miles of this segment (downstream from Buck Island) receives substantial boating use, and is used by several commercial outfitters.

Tentative Classification: Wild.

No bridges, major access roads or other developments are located in this segment. Several firebreaks and two-track roads (ways) are visible from the stream, but are considered to be very minor intrusions. A private inholding at New Cacheville has a few abandoned trailers visible from the river, but overall these are a minor impact on the naturalness of the canyon. The only public roaded access point is at Buck Island, and is used primarily by boaters. Much of the segment traverses the Cache Creek Wilderness Study Area, and contains outstanding natural and primitive recreation qualities. Overall, the level of development in this segment fits well within the parameters for wild classification.

Municipal and agricultural runoff from Clear Lake impacts the water quality throughout this segment. Algae blooms, turbidity and unpleasant odors regularly occur, especially during the summer months. These impacts are less noticeable

here than in segment one, and progressively lessen as one moves downstream. Past cinnabar mining in the watershed has also resulted in mercury deposits in Clear Lake. The effects of this mining are unknown on Cache Creek itself. There are currently no known water quality based restrictions on swimming or fishing in this segment. Further data on water quality may preclude classification of this segment as wild. However, until this data is available, BLM will base interim management on "wild" classification criteria.

4. Cache Creek Segment 3: Bear Creek confluence to Rumsey Bridge.

Conclusion: Eligible, based on recreational values.

Land Status Summary:

Management	Corridor Acreage
BLM	264.86
State	130.17
Yolo Co.	544.04
Pvt/Other	2558.95
Total	3498.02

Free-Flowing Determination: Yes.

This segment contains numerous stretches of fill and rip-rap along State Highway 16. However, these areas are limited to one side of the stream, and only impact the channel through a small percentage of its overall length. No dams or major diversions exist on this segment.

Outstandingly Remarkable Values: Yes, recreational values.

This segment of Cache Creek is one of Northern California's more popular whitewater floats, and is considered to be an exemplary regional recreation resource. It is the closest whitewater stream to many of the Bay Area's 5 million residents. The outstanding scenery in Cache Creek Canyon, combined with easy access, dependable summer flows, and moderate whitewater (class II-III) combine to make it an outstanding recreational boating area.

Other values:

This segment of Cache Creek also provides some habitat for wintering bald eagles, and for tule elk, but not to the extent of the remote upstream segments.

Tentative Classification: Recreational**.**

This is by far the most easily accessible and highly developed of the Cache Creek segments in the study area. State Highway 16 parallels and is often visible from the creek from Cache Creek Canyon upstream. Several bridges cross the creek including a low water crossing on Yolo County Road 40. Cache Creek Canyon Regional Park provides facilities for intensive recreation use including camping and picnicking. Downstream from Cache Creek Canyon, the stream enters the agricultural lands of the Capay valley.

5. Bear Creek: Highway 20 bridge to confluence with Cache Creek.

Conclusion: Ineligible.

Land Status Summary:

Management	Corridor Acreage
BLM	26.03
Yolo Co.	11.06
Pvt/Other	2536.29
Total	2573.38

Free Flowing: Yes.

Most of the Bear Creek corridor is paralleled on one side by State Highway 16. Although rip-rap and fill slopes impact the channel in numerous locations, the overall character of the stream is still considered to be free-flowing.

Outstandingly Remarkable Values: No**.**

Bear Creek reportedly had a quality warm-water fishery in the past, but overgrazing and the introduction of non-native saltcedar has greatly impacted the naturalness and fishery quality. The creek corridor provides a scenic backdrop for State Highway 16, but the scenery is not exemplary when compared to other stream corridors in the Coast Range.

6. Rocky Creek: BLM land boundary to confluence with Cache Creek.

Conclusion: Ineligible.

Land Status Summary:

Management	Corridor Acreage
BLM	1491.48
State	89.02
Pvt/Other	115.98
Total	1696.48

Free Flowing: Yes.

Outstandingly Remarkable Values: No.

Rocky Creek contains native populations of rainbow trout. This fishery is only locally significant in that numerous streams in the Coast Range contain more substantial trout populations. As the name implies, the stream corridor is extremely rocky, with large rounded boulders covering the channel. Although scenic, this is not considered unique or exemplary.

7. Petrified Canyon: Entire length.

Conclusion: Ineligible.

Land Status Summary:

Management	Corridor Acreage
BLM	830.64
State	95.66
Pvt/Other	0
Total	926.30

Free Flowing: Yes.

No diversions, impoundments or channelization.

Outstandingly Remarkable Values: No.

Petrified wood has been found in this canyon. Although this is not common in the region, it is not considered to be a stream related value. The petrified wood and other mineral values will be managed through the BLM wilderness Study Area interim management policy.

8. Trout Creek: Entire length.

Conclusion: Ineligible.

Land Status Summary:

Management	Corridor Acreage
BLM	730.59
State	87.82
Pvt/Other	0
Total	818.41

Free Flowing: Yes.

No diversions, impoundments or channelization.

Outstandingly Remarkable Values: No**.**

Trout Creek contains a resident population of trout and perennial flows. These values are only considered to be locally significant.

9. Davis Creek: Davis Creek Reservoir to confluence with Cache Creek.

Conclusion: Ineligible

Land Status Summary:

Management	Corridor Acreage
BLM	765.18
State	0
PVT/Other	852.79
Total	1617.97

Free Flowing: Yes.

No diversions, impoundments or channelization.

Outstandingly Remarkable Values: No.

The stream has perennial flows, and provides quality wildlife habitat, especially for blacktail deer. These values are only considered to be locally significant.

Appendix 3- Birds of the Cache Creek Natural Area

Herons and Egrets
Great blue heron
Great egret
Green-backed heron
Black-crowned night-heron

Geese, Ducks, and Mergansers
Canada goose
Wood duck
Green-winged teal
Northern pintail
Mallard
Northern shoveler
American widgeon
Common merganser

Vultures, Hawks, Kites, Eagles
Turkey vulture
Osprey
Northern harrier
Sharp-shinned hawk
Cooper's hawk
Northern goshawk
Red-shouldered hawk
Red-tailed hawk
Ferruginous hawk
Rough-legged hawk
White-tailed kite
Bald eagle
Golden eagle

Falcons
American kestrel
Merlin
Peregrine falcon
Prairie falcon

Turkey and Quail
Wild turkey
California quail
Mountain quail

Coots, Rails, Sandpipers
American coot
Virginia rail
Killdeer
Greater yellowlegs
Solitary sandpiper
Spotted sandpiper
Western sandpiper
Least sandpiper
Long-billed dowitcher
Common snipe

Pigeons, Doves, Roadrunner
Band-tailed pigeon
Mourning dove
Greater roadrunner

Owls
Barn owl
Western screech-owl
Great horned owl
Northern pygmy-owl
Burrowing owl
Long-eared owl
Short-eared owl
Northern saw-whet owl

Nighthawk, Poorwill
Common nighthawk
Common poorwill

Swifts, Hummingbirds
Vaux's swift
White-throated swift
Anna's hummingbird
Rufous hummingbird
Allen's hummingbird

Kingfishers, Woodpeckers
Belted kingfisher
Lewis' woodpecker
Acorn woodpecker
Yellow-bellied sapsucker
Nuttall's woodpecker
Downy woodpecker
Hairy woodpecker
Northern flicker
Pileated woodpecker

Flycatchers, Phoebe, Kingbird
Olive-sided flycatcher
Western wood-pewee
Western flycatcher
Black phoebe
Say's phoebe
Ash-throated flycatcher
Western kingbird

Larks, Swallows, Martin
Horned lark
Purple martin
Tree swallow
Violet-green swallow
Northern rough-winged swallow
Bank swallow
Cliff swallow
Barn swallow

Jays, Raven, Titmouse, Chickadee, Magpie
Steller's jay
Scrub jay
American crow
Common raven
Plain titmouse
Chestnut-backed chickadee
Bushtit
Yellow-billed magpie

Nuthatches, Wrens, Creeper, Dipper
White-breasted nuthatch
Rock wren
Canyon wren
Bewick's wren
House wren
Brown creeper
American dipper

Kinglet, Thrush, Bluebird, Robin
Ruby-crowned kinglet
Blue-gray gnatcatcher
Hermit thrush
Varied thrush
Western bluebird
Mountain bluebird
Townsend's solitaire
American robin

Wrentit, Mockingbird, Thrasher, Pipit
Wrentit
Northern mockingbird
California thrasher
American pipit

Waxwing, Starling, Vireos
Cedar waxwing
Loggerhead shrike
European starling
Solitary vireo
Hutton's vireo
Warbling vireo

Warblers
Orange-crowned warbler
Nashville warbler
Yellow warbler
Yellow-rumped warbler
Black-throated gray warbler
Townsend's warbler
MacGillivray's warbler
Common yellowthroat
Wilson's warbler
Yellow-breasted chat

Tanagers, Bunting, Grosbeak
Western tanager

Lazuli bunting
Black-headed grosbeak

Sparrows, Junco, Towhee
Rufous-crowned sparrow
Sage sparrow
Chipping sparrow
Lark sparrow
Fox sparrow
Song sparrow
Savannah sparrow
Lincoln's sparrow
Golden-crowned sparrow
White-crowned sparrow
Dark-eyed junco
Green-tailed towhee
Rufous-sided towhee
California towhee

Blackbirds, Oriole, Meadowlark
Red-winged blackbird
Yellow-headed blackbird
Brewer's blackbird
Brown-headed cowbird
Northern oriole
Western meadowlark

Finches, Grosbeak
Purple finch
House finch
Lesser goldfinch
Lawrence's goldfinch
American goldfinch

NOTE: More detailed information on the birds of the CCNA is available on the Ukiah Field Office's webpage at:

www.ca.blm.gov/ukiah/ccbird.html

Appendix 4- Public Participation Plan

Prior to the initial development of this CRMP, the following public meetings were held:

Scoping Meetings:
November 2, 1993, Woodland
November 16, 1993, Clearlake
November 30, 1993, Napa

Scoping and Goal Setting Meeting:
November 30, 1994, Clearlake

Subcommittee Meetings:
February 8, 1995, Clearlake
March 8, 1995, Clearlake
April 19, 1993, Rumsey

The primary issues that were identified at these meetings included:

#Scoping Meetings:
Wilderness issue
Wild and Scenic Rivers issue
Management of wildlife populations
Protection/management of all cultural resource sites
Control/eradication of non-native plants
Rights-of-ways across public land
Blue Ridge Trail - is it a good idea?
Too many people funneled into the Wilson Valley area
Annual elk calving closure - is it still necessary?
Available emergency services
Better access needed to BLM lands, including new access
Need better map of area
Any permits or fees for public uses?
Public safety issues
Need to identify and mark trails better
Better coordination with local government, agencies

#Scoping and Goal Setting Meeting:

The additional issues discussed at this meeting included:

Liability of property owners from trespassers
Protection of private property rights
Private boating use of Cache Creek

Equestrian issues
Need for BLM to develop seasonal calendar of activities
More prescribed burning and vegetative management through livestock grazing on BLM-acquired lands
Work with schools to start environmental education site
Hazards of elk crossing Highway 20
Conflicts with shooters vs. non-shooters
Better identification of Wilderness Study Area boundary
Need was identified for better resource inventory data
Issues dealing with water releases from the two dams
Guidelines for managing outfitters
Wildfire suppression issues
Land acquisition by BLM

The goals identified at this meeting included:

Promote education of resource values
Provide better public info - maps, brochures, etc.
Protect wilderness character of the WSA
Improve relationship between BLM and private landowners
Control the spread of non-native vegetation
Manage wildlife populations
Reduce wildfire through prescribed burning
Provide opportunities for local businesses for restoration contracts and other commercial opportunities
Monitor public use
Determine appropriateness of public use fees
Promote volunteerism
Develop mechanism to report achievements to the public
Balance user opportunities with protection of resources
Investigate partnerships to support needs
Address the special needs of equestrian use
Provide adequate law enforcement
Acquire land from willing sellers to enhance resource values and public access
Manage non-hunting shooting (plinking)
Protect sensitive and endangered species habitats
Protect free-flowing character and outstanding values of Cache Creek
Provide appropriate management of rafting use
Provide adequate sanitation facilities
Restore degraded areas with native plants
Protect cultural resources
Develop an adequate trail system
Develop a calendar of seasonal activities
Provide adequate public access for parking and trailheads
Develop designated camping sites
Provide appropriate disabled access

Consider livestock grazing as a resource management tool on lands BLM acquires which have existing grazing
Ensure adequate representation by all user groups in the CRMP process

#Subcommittee meetings. Detailed discussions were held on:

Protecting wildlife populations from too much human activity during critical times
Need to place "elk crossing" signs along Hwy. 20
Overall management of wildlife populations
Fisheries habitat improvements
Protection of cultural resources
Erosion control projects within the WSA
Public access
Public information needs including safety
Facilities to develop
User conflicts
Adequate law enforcement
Rafting issues
Equestrian use
Guidelines for outfitters
Fee use of area
Volunteers
Private property issues
Environmental education site
Water release issues
Future land acquisitions
The concept of a "time" zonation
Continuing vehicular closure
Unauthorized uses on public lands

! Agencies and organizations represented at these meetings included:

Yolo County Horsemen
Friends of the River
Yolo County Board of Supervisors
U.S. Army Corps of Engineers
UC Davis
USDA Natural Resources Conservation Service
Lake County Board of Supervisors
Parnum Paving
California Department of Fish & Game
Lake County Flood Control and Lakebed Management
Clear Lake Horsemen's Association
California Wilderness Coalition
Whitewater Adventures
American Whitewater Association

Cache Canyon River Trips

#Additional Scoping meetings for the Payne Ranch acquisition were held on**:**

April 28, 1999, Clearlake
April 29, 1999, Rumsey
June 22, 1999, Colusa

Issues identified at these meetings included:

1. Public Access
   Will horse drawn vehicles be permitted?
   Will mountain bikes (non-motorized) be permitted?
   Parking/access sites.
      Safe - large space for parking.
   Access at Lynch Canyon.
   Provide some access for motor vehicles to allow non-horse, non-hiking access.
      Back Country Byway?
   Handicapped accessibility where appropriate.
   Encourage slow, careful planning/implementation especially when considering vehicular
      access.
   Access/management of water play.
   Highway 16 site (access).
      Move road closure gate.
      Bear Creek crossing during high water.
   Allow vehicular access by permit.
   Allow access for seasonal activities.
   Access should be either “2 feet or 4 feet”. No through roads. Just have a good staging
      area for the public to park.
   Vehicle use should be allowed for compatible uses - livestock, bees, etc.
   Public access vehicle staging should be on the edges of the property - not interior areas.
   Don’t build special access roads into the interior. Leads to road hunting, vandalism, abuse

2. Recreational Opportunities
   Equestrian
      Areas needed for stock-drawn vehicles - flat areas.
      Equestrian rights to use the Payne Ranch
      Can people equestrian camp overnight?
      Horse riding should be considered a compatible use.
      Establish and maintain a horse camp.
   Target Shooting.

(Not allowed on Fish and Game lands)
Cache Creek Management Area?
Shooting ranges?
Safety to other users?
Designated target shooting area.

Hunting
Hunting should be part of the mix of compatible uses.
Control hunting rights? Who?
Will BLM put up hunting signs along Rte. 16?
What will they do, if anything?

Camping/Hiking
Camping/campfires for hikers.
Spread hiking opportunities throughout Cache Creek Management Area (i.e. level areas
on Payne Ranch).

Off Highway Vehicles
Keep OHV activities out.
No OHV use.

Miscellaneous
Place for dog trials/competition
Designate "dog friendly" park (off-leash area)
BLM manages for 1/2 people of USA - all on these things to be done, but NOT give
anyone any exclusive rights out there:
Hunting - deer rifles.
Horseback riding.
Rules and regulations by BLM to use public lands?
Investigate all compatible uses.
Mountain bikes pose special consideration. Plan carefully to avoid conflicts

3. Commercial Uses

Concessions
Rafting?
Horseback rides?
Horse/mountain bike tours?
Would the public have to pay access fees to private concessions to see public lands?

Grazing
Will there be livestock grazing and if so, how, and how will it be managed.
Is BLM going to limit grazing?
Will BLM allow vehicles in where cattle graze?
Is BLM for or against grazing along Bear Creek?

Wood cutting.
Removal of creek rocks.
Honor existing leases, e.g. rafters, grazing etc.

4. Environmental Issues

Noxious plant control

Use cattle grazing to control star thistle (periodic).

Saltcedar?

Consider all tools for noxious weed control - including grazing, fire.

Recognize concern with herbicide use. e.g. complete eradication of some plants such as yellow star thistle could harm bee industry. Herbicides should be responsibly used.

Wildlife protection.

Manage for ecosystem protection (not single species).

How will grazing affect wildlife along creek?

Is there a local elk herd on this property, and how will it be managed? (Current season is limited from 2- 5 tags per year).

How will elk be drawn off of the adjacent private lands?

There should be no species introductions that could impact neighboring lands.

Riparian corridor along Bear Creek.

Pockets on Payne Ranch - control burn?

Prescribed burns coordinated with Air Resources Board and A.P.C.O..

5. Public Information Needs

Need accurate maps showing ownership.

Trail head/access point information for users.

Area needs to be appropriately signed and mapped.

Is there a way of letting the public know about when the water releases will occur on Cache Creek? Can releases be posted?

Very clear signs - keep people where they belong - staging areas, trails, etc. Keep people off private - keep users in their designated use areas - avoid conflicts.

6. Area Development

Design staging areas to be compatible with intended uses.

Camping/campsites.

Horse camps?

Facilities?

Consider keeping existing hunter camps for visitor use.

Hunting camp to remain? Improve? Remove?

Low level development.

Limited motorized use.

How long will it take for BLM to develop area?

What equestrian enhancements will be done for the area?

How does BLM keep vehicles on existing roads and off of the meadows and hills?

What is going to happen to any existing structures or improvements on the ranch? Will they

stay to be used by the public or will they go?
Existing roads might be the trail system.
A designated trail system is needed. Roads might be the best option.
Designated trails will help prevent environmental problems and user conflicts.

7. Miscellaneous Issues
Increased staffing to manage land.
Assurance of PILT payments.
Burden of county support services.
Law enforcement.
Emergency response.
Search and Rescue.
Sale of BLM parcels NOT to other federal agencies.
NO OHV use/grants.
BLM will not receive county enforcement power.
Vandalism - lack of attention by BLM.
Will maintenance funding continue?
Private landowners (adjacent) assist.
How do we, the public, become informed after each E.A. - as to the results?
Add water rights to plan (retain in BLM).
Like concept of larger chunks of BLM to manage. Larger areas are open to the public and
takes pressure off of existing areas.
Are there cultural or T&E issues?
Would these keep people out?
Did BLM purchase the mineral estate?
How will BLM manage the minerals?
Address mineral issues. Open to mining? Withdrawn?
BLM needs to encourage service minded groups to assist with the management and development of the facilities (i.e. wilderness riders).
What part will Cal Fish and Game play with management and enforcement?
Law enforcement impacts on county.
BLM ability to manage.
Assure neighboring landowners they will not be impacted.
"Safe harbor" - Environmental Study Area (e.s.a.)
Be sure private landowners do not lose uses of their lands if e.s.a. issues arise on the property.
Provisions should be allowed for partner groups to help educate the public - land ethic.
Use partner groups to help with development and maintenance.
Cultural resources - protection first - more important than interpretation.

Notes From Cache Creek CRMP Review Team Meeting
March 3, 2001
Rumsey, CA

In attendance:

BLM: Rich Burns, Phil Damon, Gregg Mangan, Dave Fatch, Jeff Wilbanks, Pardee Bardwell, Larry Ames

Committee: Craig Thomsen, Ray Krauss, Chet Vogt, Jim Swanson, James Austin, Jeff Smith, Jim Eaton, Kesner Flores

Other Committee members: Jim Ball, Mike Ford, Doug White

! Public Access / Resource Protection

- " Is intent of Natural Area resource protection or is it recreation driven?
- " Plan appears to be a recreation plan.
- " Be proactive-don't fix a problem after the fact.
- " Provide summary map based on environmental constraints and opportunities.
  - Data map - sensitivity (by July?)
- " Locate physical developments (trails, access points) away from sensitive areas.
- " Cross reference or incorporate interpretive plan for the area.
- " Manage resources by managing people.
- " Don't increase public use without commensurate increase in law enforcement.
- " Specific sensitive areas to be managed - timing (seasonal) i.e. calving area for elk.
- " Identify values prior to recreation development/access.
- " Biological area (wetlands, native grasses, etc.) to be included in protection.
- " Traditional gathering areas (human) for plants used by Native Americans.
- " Plan to be used as educational document for understanding management direction.
  - Interpretive plan
- " Interpretive map re: sensitivity of areas
- " 3-5 year plan? (To determine sensitive areas)(Phases?)
  - Phase I
    - # Data gathering - determining sensitive areas.
    - # Limited access:
      - * provide for existing use?
      - * closures?
      - * existing access only?
    - # Facility type/location directs use.
    - # People (volunteers/employees) on-site to educate/interpret area (more guided hikes, etc.)

! Acceptable Use

- " Motorized access?
  - Not physically feasible without major construction.
  - Other motorized opportunities exist nearby, not in Natural Area.
  - No public motorized use due to geographical restraints.
  - Prefer to divert use to other existing roads (Knoxville, Berryessa, etc.)
  - Specify administrative exceptions (not a blanket exception)
  - If one concessionaire has vehicular access, do you have to grant the same to others (unfair advantage)?
  - Look for alternate (safer) route to Buck Island.
- " If you close one area to an activity (i.e. shooting), you need to open (designate) another area, or else the public will just go to the next nearest site.
- " Fees to be charged for access to be put back into area (enforcement, etc.)
- " Write fee into plan - not after the fact.
- " Funding
  - Public pressure on agencies for increased budgeting (user support).
  - Educate public as to need for fees to be put back in area.
- " Specify permanent, on-site presence in plan.
- " Use volunteers and partners for law enforcement, interpretation, work projects, etc. (include in plan)
- " Ask Sunset Magazine about writing article about region, not just the Natural Area.

! Wilderness

- " Inventory of Payne Ranch in RMP, not CRMP
- " Mountain bikes and administrative use of vehicles not permitted (Only difference between wilderness designation and CRMP preferred alternative).
- " Wilderness designation is a “crude tool” that assumes everything is homogenous. CRMP is a more refined tool.
- " Wilderness designation is more secure - requires an act of Congress to change.
- " DFG is on record officially opposed to wilderness designation due to constraints on habitat management.
- " Manage for wilderness values (best tool)
- " Appropriate management, admin., land use, etc. - Wilderness, Area Plans provide different levels of management responsibility & security to/from change.
- " Potential for Wilderness will be addressed in the RMP.
  - Consider other designations for the same management goal.
- " Zones within the larger area for Wilderness.
- " “Phase 1" - no mountain bikes. There’s an established trail already in Fiske Creek area.
- " “Phase 2" - recommend/decide uses.
- " Manage for wilderness values vs. Wilderness designation.
  - Or manage for best for landscape.
  - Delineate areas 1 through 5, for instance, as interim management.

! Livestock Grazing/Wildlife Habitat Management

- Look at grazing as a management tool, not just a commodity.
- Grazing and livestock are neither good nor bad. Management of grazing can be good or bad.
- Fire is another tool, but more difficult to use. Management is the key.
- Consider livestock/wildlife interactions.
- Grazing is a tool for specific areas. Not universal.
- Problem with traditional grazing leases ($1.35 per AUM and turn the cows loose).
- Don't make grazing the #1 tool. Use other options (fire, etc.)
- Find remnant grasses (seed sources) as part of inventory/survey.
- Use "adaptive management": Set goals, assess tools and threats, implement and monitor, revise plan based on evaluation.
- Herbicides as part of integrated management plan?
  - Conflict with Native American uses (gathers)
  - Create buffer zones
- Be careful of cultural areas.
- Use equestrian groups for weed detection.
- Build political constituency to support fire as a management tool.
- How do we deal with wild fires (address in plan).
- What is goal - native plant restoration or improved grazing?
- Time controlled grazing
  - Is it realistic? Could someone be found who would do this?
  - Fencing, riparian, handling facilities. How can we encourage this?
- "Rest" is not the solution. Mediterranean exotics take over - mostly on better soils.
- Grazing as a "tool" is important vs. just traditional BLM technique/method of grazing - be specific in the plan how grazing will be used.
- Upland areas recover to natives with timed grazing or no grazing.
- Long-term approach - capital outlay.
- Use ecosystem processes, not single species management.
  - Research what tools to use.
  - Monitor after application.
- Don't set goals you can't reach.
- Include bioassessment of Cache Creek (waterway) in plan (CalFed grant funding available).
- Different habitats have different goals and a different choice of tools.
- Emphasize natives.
  - What are proper plants/seeds for rehab?
  - Local source only, or from out of the area?
  - Should outside gene pools be introduced?
  - Are more desirable non-natives proper to use to displace medusa head, for instance?
  - Case-by-case basis.

- Have <u>clearly</u> stated objectives and apply the "best" tool.
  - Long range, not short term.

- Do we know how and when to use various tools?

" Restore to what? Set reasonable goals.
" Use local farmers to grow local native plants for seeds.

! Withdrawal From Mineral Entry

" Mineral withdrawal doesn't affect saleables (river rock). Sale of sand and gravel is at BLM's discretion, for which a permit is required.
" What are the prospective minerals in the area?
  - saleable
  - leaseable
  - locatable
" Gem club interest?

! **Boating on Upper Cache Creek**
  - North Fork to Buck Island
  - Main Fork from dam to confluence.

" Need data on impacts before allowing activity.
" Don't promote or develop facilities.
" Need means of implementing plan.
" Basis of plan is 1st identify resources and 2nd establish acceptable use. All use should be based on resource.
" Do a "conflict analysis" (i.e. user groups, people vs. environment)
" Watershed management plan
  - Inflow ° Outflow
  - Needs to be addressed.

Notes From Cache Creek CRMP Review Team Meeting
December 8, 2001
Williams, CA

In attendance:

BLM: Rich Burns, Gregg Mangan, Jeff Wilbanks, Larry Ames, Pardee Bardwell, Doug Prado

Committee: Andrew Fulks, Craig Thomsen, Jim Eaton, Gerald Hartwig, Chet Vogt, Scott Koller, Doug White, James Austin, Mike Ford, Jim Swanson, Jeff Smith, Kesner Flores

I. General Comments

1. Are we leaning toward one alternative use?
2. Should have separate signed trails for horses and mountain bikes (incompatible uses).
3. Where is management funding coming from?
4. Should be funding set aside for public use maps.
5. Separate uses in plan and prioritize
   a. Wildlife dependent activities
   b. Wildlife oriented activities
   c. Wildlife independent activities
6. Categorize uses to determine “acceptable level” of use for each zone.
7. Grasslands need to be “harvested” annually to promote a desirable species.
   a. Grazing
   b. Mowing
8. Area need to be evaluated individually to determine grazing policy.
   a. Monitoring is necessary - should be addressed in plan.
9. Consider both burning and grazing as management tools. Evaluate on a case by case basis. Site specific. Include other tools as well (mowing, rest, herbicides, etc.).
   a. Monitoring is critical to success.
10. Add component for rangeland (grassland) monitoring to plan.
11. Incorporate existing data (wildlife, soils, etc.) into plan.
12. Identify wildlife habitat areas that shouldn’t receive intensive human use. Direct use to other, more suitable areas. (Data needed)
13. Plan needs to be able to handle “external forces” that will influence area.. (I.e. Sunset article, Wilderness designation)
14. Habitat goals not specifically stated in plan.
15. Recreation fees should be based on what we provide. (Facilities, etc.)
16. Fees affect user behavior (ownership). Attract a different level of visitor.
17. Fees give “pride in ownership”. Needs to be initiated at the start.
18. Plan’s goals need to be flexible.
19. Fee areas require additional personnel for collection and monitoring.
20. Add objectives for each zone (zone specific).
21. Insert “acceptable level” in front of primitive recreation in overall plan goal.

22. Boundaries need to be signed (public v. private).

II. Specific Comments, by Zone

A. Zone A
1. Need to provide for better access to zone than current.
2. Move camping limitation further from parking area (Baton Flat?)
3. Loop Redbud Trail. (Prevent trespass on private)
4. Bridge at Baton Flats could increase litter into Wilson Valley/primitive area.
5. Exclude Redbud/N. Fork put in from commercial rafting permits.
6. Restriction to use should respond to impact to resource.
7. Emphasize interpretation at North Fork
8. Include IMP standards in all alternatives.

B. Zone B
1. Objective: acquire land for public access to zone?
2. Consider expanding recreational opportunities.

C. Zone C
1. Primitive recreation.
2. Protect cultural values.
3. Eradicate noxious plants. Reestablish natives.
4. Make sure plans for mountain bike trails are not precluded by future studies (spec. Wilderness).
5. Weed free feed (for horses) would be difficult or impossible to enforce. (Requires 10 day quarantine).
6. If closed to rafting, notify at put-in
7. Access to Clearlake dam for rafting has a lot of issues. Not a good idea (liability). Same problems at Davis Street.

D. Zone D
1. Grazing - not specific. Use “best management practice”.
2. Concerned about “plinking”
3. Concerned about establishing warm water fishery in Bear Creek.
4. Concern about equestrian use on Bear Creek (conflict with elk).
5. Find better techniques for erosion control.
6. Inventory ponds for wildlife needs. Maybe eliminate some. Redesign or repair others.
7. Develop trails around edges of zone (close to roads). Leave heart of interior undeveloped.
8. Loop Judge Davis/Roadkill Café trails.
9. Consider prohibiting mountain bikes in zone D pending impact studies.

E. Zone E
1. Law enforcement problems.
2. Consider developing for recreational access.
3. Partner with adjacent landowners.

4. Potential for eco-tourism (historic interpretive potential).
5. Research historical values.

F. Zone f

1. Conflict between horses and rafters' buses on Road 40.
2. Need better parking at Fiske Creek Trail (signing).
3. Work with Yolo county to develop connector trails.
4. Consider developing Fiske Lake as a destination. (Annual clean-up, designated parking).
5. Consider alternative road access to Buck Island (identify before Wilderness Designation).
6. Develop better rafting put-in at Yolo County Park upper site (move from Bear Creek confluence).

Appendix 5 - BLM/CDFG MOU

MEMORANDUM OF UNDERSTANDING

between

THE BUREAU OF LAND MANAGEMENT, Ukiah Field Office

and

THE CALIFORNIA DEPARTMENT OF FISH AND GAME, REGIONS 2 AND 3

I. PURPOSE

The purpose of this Memorandum of Understanding is to establish and record terms and conditions of agreement between the Bureau of Land Management's Ukiah Field Office, hereinafter referred to as the Bureau; and the California Department of Fish and Game's Regions 2 and 3, hereinafter referred to as the Department, for cooperative management of Bureau- and Department-managed lands within the Cache Creek Management Area (Bureau) and the contiguous Cache Creek Wildlife Area (Department). These lands have been identified in several planning documents as providing critical habitat for the bald eagle and the tule elk. In addition to these lands, this MOU will also apply to any future acquisitions by the Bureau or the Department within or adjacent to these two designated units.

Since 1985 acquisitions of critical habitat at Cache Creek by the Bureau and the Department have included 7086 and 2450 acres respectively. These acquisitions have included habitats for wintering bald eagles, the resident tule elk, and a variety of other wildlife species. Other resources found on these acquired lands include riparian habitat, rare plants, cultural, scenic, and recreational values. The Cache Creek land acquisition project is an on-going effort with an eventual goal of protecting and enhancing these special resource values found within the Bureau's and Department's designated units.

II. AUTHORITY

Bureau. Section 307(b) of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701-1782, commonly known as FLPMA) provides that the Secretary of the Interior may conduct investigations, studies, and experiments, on his own initiative or in cooperation with others, involving management, protection, development, acquisition, and conveyance of the public lands and may enter into assistance relationships for these purposes, subject to applicable law.

The Sikes Act (16 U.S.C. 670a-670o) encourages and provides program opportunities for states and the federal government to cooperate on wildlife resource management.

The Master Memorandum of Understanding between California BLM and the Department, dated May, 1984, provides for "cooperation in the identification of lands having significant fish and wildlife values and in the formulation and execution of plans or programs for the management of fish and wildlife resources on the public lands and by revisions as needed to keep such plans or programs current."

Department. The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species pursuant to Sections 1801, 1802, and 1900 of the California Fish and Game Code.

III. OPERATIONS

WHEREAS, the Bureau and the Department mutually agree to manage these identified lands for the protection of biological, cultural, recreational, and scenic values,

A. The Bureau agrees to:

1. Take the lead in the preparation and implementation of the Cache Creek Coordinated Resource Management Plan (CRMP). This cooperative plan discusses balancing the management of the special resource values at Cache Creek with an acceptable level of visitor use;

2. Provide the expertise for cultural resources on Bureau and Department lands, including archaeological monitoring, cultural clearances for proposed projects, and coordinating any necessary cultural studies;

B. The Department agrees to:

1. Develop and manage any hunting programs on public lands in the Cache Creek area;

2. Provide technical and on-site assistance with fish and wildlife management projects.

C. The Bureau and the Department mutually agree to:

1. Cooperate in a primary management objective of protection and/or enhancement of the special resource values found on state and federal lands at Cache Creek. These values include biological, cultural, recreational, and scenic.

2. Review and consult with each other regarding any planned or permitted activities on public lands within the Cache Creek Management Area and Cache Creek Wildlife Area.

3. Follow the recommendations and guidelines found within the Cache Creek CRMP. Other more specific activity plans such as the Tule Elk Habitat Management Plan (HMP) or the

Area of Critical Environmental Concern (ACEC) Management Plan may also be used as management guidelines. These other plans may be updated as necessary.

4. Assist each other with management of biological resources found on Bureau- and Department-managed lands. This assistance will include monitoring, inventory, pre-project work, and on-the-ground implementation of enhancement projects, trail design and building projects, and other visitor use facilities planned for the area. Any financial assistance will depend upon available funding;

5. Be responsible for environmental documentation of projects for whichever agency proposes a project. Each agency will follow their respective procedures on lands which they manage. If the Department proposes a project on BLM-managed lands, the Department will prepare all necessary environmental documentation, with review and concurrence by BLM prior to project initiation, to ensure compliance with NEPA; if the Bureau proposes a project on CDFG-managed lands, BLM will prepare all necessary environmental documentation, with review and concurrence by the Department prior to project initiation, to ensure compliance with CEQA.

6. Enter into new partnerships and build on existing partnerships with conservation organizations and other public agencies.

7. Continue to pursue acquisitions of identified lands which support significant resource values within the Cache Creek Management Area and Cache Creek Wildlife Area. High priority will be placed on parcels which provide public access. Public access will be managed within the constraints required to protect biological, cultural, scenic, and recreational resources.

8. Cooperate in law enforcement patrols within the Cache Creek Management Area. Any unauthorized uses discovered will be brought to the attention of each agency and eliminated.

9. Share any necessary resource inventory or monitoring reports.

IV. AMENDMENT PROCESS

This MOU may be amended, as necessary or desirable, by a written amendment approved by the Bureau and the Department. Either the Bureau or the Department may propose an amendment by providing a written copy of the proposed amendment to each other. No amendment shall become effective unless and until it has been approved in writing by both the Bureau and the Department.

V. APPLICABILITY OF STATE AND FEDERAL LAW

Notwithstanding any other provision herein, this MOU is subject to, and shall not be interpreted to be inconsistent with, any requirement of the federal Endangered Species Act (16 U.S.C. Section 1531 et seq.) or any other applicable federal, state, or local law or regulation.

VI. TERM OF THIS AGREEMENT

This MOU shall become effective on the date signed by the remaining signatory, and shall remain in effect for a period of five (5) years from that date.

VII. EXECUTION

This MOU is executed in three (3) duplicate originals, each of which is to be considered an original.

VIII. AVAILABILITY OF FUNDS

Implementation of this MOU by either the Bureau or the Department shall be subject to the availability of funding.

IX. ELECTED OFFICIALS NOT TO BENEFIT

No member of or delegate to Congress or resident commissioner (county supervisor) shall be entitled to any share or part of this MOU, or to any benefit that may arise from it.

X. SEVERABILITY

If any provision of this MOU is judicially determined or held to be invalid for any reason, that invalidity shall not, however, be imputed to any other provision of this MOU that was not so determined or held to be invalid.

APPROVAL

The Cache Creek MOU is hereby approved. This agreement will be in effect for a period of five years following signed approval by both agencies. At that time the MOU will be reviewed, updated, and extended for an additional five-year period.

Rich Burns
Clear Lake Field Office Manager
Bureau of Land Management

7/29/98
Date

Brian Hunter
Region 3 Manager
Department of Fish & Game

7-14-98
Date

Banky Curtis
Region 2 Manager
Department of Fish & Game

7-15-98
Date

List of Maps and Tables

Bibliography

Averitt, P. "Quicksilver Deposits of the Knoxville District Napa, Yolo, and Lake Counties." California Journal of Mines and Geology, v.41, No. 2, 1945.

Badovinac, Peggy. "Indicators of Wealth in a Late Patwin Village." Proceedings of the Society for California Archaeology, 7:135-141,1994.

Barrett, S. A. "The Ethno-Geography of the Pomo and Neighboring Indians." University of California Publications in American Archaeology and Ethnology, Vol. 6., No.1, 1908.

Basgall, Mark. "Chronological Sequences in the Southern North Coast Ranges, California." There Grows A Green Tree. Papers in Honor of David A. Fredrickson. Center for Archaeological Research at Davis, Publication 11. University of California, Davis,1993.

Becker, G.F. "Geology of the Quicksilver Deposits of the Pacific Slope" U.S. Geloogical Survey Monograph 13, 1888.

Bouey, Paul D., and Mark E. Basgall. Archaeological Investigations at CA-LAK-506 on Cache Creek, Lake County, California. Summary of the 1990 Field Program (Letter Report). Far Western Anthropological Research Group, Inc., submitted to BLM, California State Office, Sacramento, under Cooperative Agreement No. CA-950-CAO-026,1990.

Brice, J. C. "Geology of Lower Lake Quadrangle California." California Division of Mines Bulletin 166, 1953.

California Department of Fish and Game. California Natural Diversity Data Base, 1996 edition.

California Native Plant Society. California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California. 1994.

Drucker, Philip. Appraisal of the Archeological Resources of Wilson Valley Reservoir, Lake County, California, for Pacific Coast Area River Basin Surveys. Smithsonian Institution, 1948.

_____. Wilson Valley Reservoir, Geography--Ecology. Report (S-645) on file at Northwest Information Center, Sonoma State University, Rohnert Park, California, n.d.

DuBois, Cora. "Wintu Ethnography". University of California Publications in American Archaeology and Ethnology, Vol. 36, No.1, 1935.

Forstner, W. "The Quicksilver Resources of California." California Mining Bureau Bulletin 27, 1903.

Greenway, Marlene L. "Surface Archaeology of the Cache Creek Drainage, Lake County, California". Master's thesis, Sonoma State University, on file at BLM Ukiah Field Office, Ukiah, California, 1988.

Hanson, D. M. "Early Reminiscences of Clear Lake". Clear Lake Press, February 5, 1892, page 2 columns a and b. Reprinted in Pomo Bulletin, publication of Lake County Historical Society, February, 1985, pages 16-19.

Hanson, Nicholas Wilson. As I Remember. Broyles & Camper, Chico, California.1944.

Harrington, J.M. and Verosub, K.L. "A Detailed Gravity Survey of the Wilbur Springs Area, California." U.S. Geological Survey Professional Paper 1141, pp.161-166, 1981

Hopkins, Michael. Recreation Improvement Plan, Cache Creek Canyon Regional Park. Yolo County Division of Parks and Grounds, California.

Hudson, John W., M.D. "Indian Gold". Paper on file at Grace Hudson Museum, Ukiah, California, under Accession #21047. 1902.

1902 Field Notebook XVII. Grace Hudson Museum, Ukiah.

Jackson, Robert J. and David A. Fredrickson. Archaeological Investigations at CA-LAK-702. 3 volumes. On file under S-1280 at the Northwest Information Center, Sonoma State University, Rohnert Park, California. 1978.

Johnson, Patti J. "Patwin". California. Ed. Robert F. Heizern. Untitled incomplete field report for Lower Tebti excavations at confluence Bear Creek and Cache Creek.1978

Klein, I.E. and Goldman, H.B. "Sand and Gravel Resources of Cache Creek in Lake, Colusa, and Yolo Counties, California." California Journal of Mines and Geology, Vol. 54, No. 1, 1958

Knudtson, Peter M. The Wintun Indians of California and Their Neighbors. Naturegraph Publishers, Inc., Happy Camp, California. 1977.

Kroeber, Alfred L. Handbook of the Indians of California. Bureau of American Ethnology Bulletin 78. 1925.

_____. "The Patwin and Their Neighbors". University of California Publications in American Archaeology and Ethnology, 29(4):253-423. 1932.

Lawton, J.E. "Geology of the North Half of the Morgan Valley Quadrangle and the South Half of the Wilbur Springs Quadrangle." Standford University, PhD. Thesis, 1956

McCarthy, Helen. "A Cultural Resource Overview for the Mendocino National Forest and the East Lake Planning Unit, BLM, California". Volume I, Ethnography and Prehistory. Appendix C, Inventory of Culturally Significant Native American Sites. Report on file at the BLM Ukiah Field

Office, Ukiah, California. 1982.

McClellan, C. "Ethnography of the Wappo and Patwin". Archaeology of the Napa Region. Ed. Robert F. Heizer. University of California Archaeological Records 30:1-39. Berkeley. 1953.

McCullough, Dale R. "The Tule Elk: Its History, Behavior, and Ecology." Publication in Zoology No. 88. Berkeley: University of California Press, 1969.

McKern, W. C. "Functional Families of the Patwin". University of California Publications in American Archaeology and Ethnology, XIII:235-258. 1922.

_____. "Patwin Houses". University of California Publications in American Archaeology and Ethnology, Vol. XX. 1923.

Mauldin, Henry K. Historical Notebooks. 50 volumes. On file at the Lake County Library, Lakeport, California. 1950's.

Merriam, C. Hart. "Ethnographic Notes on California Indian Tribes". University of California Archaeological Survey Report 68. Ed. Robert F. Heizer. Berkeley. 1967.

Moyle, Peter B. Fish Species of Bear Creek, Colusa County. Personal Communication, February 18, 1998

Neitz, George. "Sacramento Junior College Archeological Project: Lake County. Garner's Ranch and Long Valley, November 21, 1934 to February 23, 1935". Field Notes (S-866) on file at the Northwest Information Center, Sonoma State University, Rohnert Park, California. 1935.

Palmer Lyman L. History of Napa and Lake Counties. Bowen and Co., San Francisco, 1881.

Powers, Stephen. "Tribes of California". Contributions to North American Ethnology, Vol. III. Government Printing Office, Washington, D.C. 1877.

Solari, Elaine-Maryse, M.A., J.D. Cache Creek Archaeological District Nomination. 1994.

United States Bureau of Land Management. "Bald Eagle Season Use of the Cache Creek Drainage - Results of the Winter 1984-1985 Surveys". BLM Ukiah Field Office, Ukiah, California. 1985.

_____. Management Framework Plan Update. BLM Ukiah Field Office, Ukiah, California. 1984.

_____. Rocky Creek/Cache Creek Wilderness Study Area EIS. BLM Clear Lake Resource Area, Ukiah, California. 1986.

_____. Cache Creek Area of Critical Environmental Concern Management Plan. BLM Ukiah Field Office, Ukiah, California. 1987.

_____. Northern California Chaparral Research Natural Area Management Plan. BLM Ukiah Field Office, Ukiah, California. 1985.

_____. Cache Creek Tule Elk Wildlife Habitat Management Plan. BLM Ukiah Field Office, Ukiah, California. 1983.

_____. Cache Creek Riparian Habitat Monitoring. BLM Ukiah Field Office, Ukiah, California. 1990.

_____. Rocky Creek/Cache Creek WSA Fire Management Plan. BLM Ukiah Field Office, Ukiah, California. 19??.

_____. Perkins Creek Grazing Allotment. BLM Ukiah Field Office, Ukiah, California. 1995.

United States General Land Office. Various Land Status and Use Records: Historical Index, Cadastral Survey Plats, Mineral Survey Plats, and Rancho Survey Plats.

Vredenburgh, Larry. Geology and Mineral Resources of the Cache Creek-Rocky Creek Wilderness Study Area. Bureau of Land Management, Ukiah Field Office, Ukiah, California. August, 1981.